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THE ROLE OF MODERN TECHNOLOGIES IN TEACHING THE RUSSIAN LANGUAGE

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Abstract

This article explores the role of modern technologies in teaching the Russian language and their impact on learning effectiveness. It highlights the use of online platforms, mobile applications, virtual classrooms, and multimedia resources to develop learners' speaking, listening, reading, and writing skills. The study also discusses how technology increases students' motivation, supports individualized learning, and makes lessons more interactive. The article concludes that effective integration of digital tools can improve Russian language teaching when combined with appropriate teaching methods.

Keywords: Russian language, technologies, teaching methodology, online learning, digital platforms, interactive learning, multimedia.

Introduction

The rapid development of modern technologies has significantly transformed the field of education, particularly language teaching. Traditional methods of teaching, which often relied on textbooks, lectures, and repetitive exercises, are increasingly being supplemented or replaced by digital tools that make the learning process more interactive, engaging, and effective. In the context of teaching the Russian language, the integration of modern technologies provides opportunities to develop all aspects of language competence, including pronunciation, listening comprehension, speaking, reading, and writing skills.



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Digital platforms, online resources, mobile applications, and multimedia tools enable teachers to design lessons that cater to different learning styles and needs, while also fostering student motivation and active participation. Moreover, these technologies allow for personalized and flexible learning, giving students the ability to practice language skills at their own pace and in diverse contexts.

This article aims to examine the role of modern technologies in teaching Russian, analyze their benefits in enhancing the learning process, and explore practical approaches for effectively integrating technological tools into language education. By understanding the potential of technology in language teaching, educators can create more dynamic and effective learning environments that respond to the challenges and opportunities of the 21st century.

Literature Review

The integration of modern technologies into language teaching has been widely studied by researchers worldwide. Studies have consistently shown that digital tools, including multimedia resources, online platforms, and mobile applications, enhance students' engagement and facilitate the development of all language skills (speaking, listening, reading, and writing). According to Smith (2019), interactive technologies enable learners to actively participate in the learning process, making lessons more dynamic and effective.

In the context of teaching Russian, several scholars have emphasized the importance of combining traditional methods with technological innovations. Ivanov (2020) notes that digital tools, such as language learning apps and virtual classrooms, allow students to practice pronunciation and listening comprehension more effectively than conventional methods alone. Similarly, Petrova (2018) highlights that online platforms and multimedia materials provide authentic language exposure, supporting communicative competence and cultural understanding.



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Research also points to the motivational benefits of technology in language education. Digital resources encourage autonomous learning, increase learner motivation, and enable personalized instruction, as indicated by Smirnova (2021). In addition, blended learning approaches, which integrate face-to-face instruction with digital tools, have been found to improve learning outcomes and accommodate diverse learner needs (Kuznetsov, 2017).

Despite the demonstrated advantages, scholars also caution that the effectiveness of technology depends on its proper implementation. Teachers must be trained to use digital tools effectively and balance traditional methods with innovative approaches to achieve optimal results (Novikova, 2019).

Overall, the literature suggests that modern technologies play a crucial role in enhancing Russian language teaching by creating interactive, flexible, and learner-centered environments. However, successful integration requires careful planning, methodological competence, and ongoing evaluation of technological tools.

Results

The implementation of modern technologies in teaching the Russian language has shown significant improvements in multiple aspects of the learning process. The integration of online platforms, mobile applications, interactive exercises, and multimedia resources has transformed traditional teaching methods, making lessons more engaging, dynamic, and effective.

One of the most notable results is the increased level of student engagement and participation. Unlike traditional classroom methods, technology-based lessons encourage students to actively interact with the learning material. For example, interactive exercises and gamified learning applications allow learners to practice vocabulary, grammar, and sentence structures in real-time, providing instant feedback and correction. Virtual classrooms also enable students to participate in



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discussions, collaborative projects, and role-playing activities, fostering a higher degree of involvement compared to conventional lectures.

The use of multimedia resources—such as videos, audio recordings, and visual presentations—has significantly improved students' comprehension and retention. Listening comprehension and pronunciation skills have particularly benefited from the use of audio-visual tools, as learners are exposed to authentic language usage and diverse accents. Video materials also help contextualize grammar and vocabulary, allowing students to understand language usage in real-life situations. Moreover, interactive exercises allow learners to reinforce these skills, creating a more holistic approach to language acquisition.

Technology has also facilitated personalized and autonomous learning. Students can progress at their own pace, repeat difficult exercises, and access additional resources outside of classroom hours. Online learning platforms often include progress tracking and adaptive exercises that adjust to the learner's level, enabling teachers to monitor performance and provide targeted support. This flexibility has led to higher motivation among students, as they can set personal learning goals and witness their achievements in real-time.

In addition, the integration of digital tools has enhanced collaborative learning. Students can participate in group projects, online discussions, and peer assessments, which improves communication skills and intercultural understanding. The use of collaborative platforms also allows teachers to assign tasks that require active problem-solving and teamwork, bridging the gap between theoretical knowledge and practical application.

From the teachers' perspective, modern technologies have provided opportunities to diversify lesson planning and teaching strategies. Digital tools enable educators to create multimedia-rich lessons, incorporate real-life contexts, and employ various interactive activities to cater to different learning styles. Teachers can also analyze student performance through platform analytics, allowing for evidence-based adjustments in teaching methods. This data-driven approach improves



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overall lesson effectiveness and ensures that learning outcomes are aligned with students' needs.

Finally, the results indicate that the combination of traditional teaching methods with modern technologies yields the most effective outcomes. While technology provides interactive, engaging, and flexible learning environments, traditional methods such as direct instruction, guided practice, and teacher-led discussions remain essential for clarifying complex topics and maintaining structure in the curriculum. The synergy of these approaches enhances student comprehension, participation, and skill development.

Overall, the results demonstrate that modern technologies play a crucial role in enhancing Russian language education. They increase student engagement, support all aspects of language competence, foster personalized learning, and improve teaching effectiveness. The findings suggest that technology, when applied thoughtfully and in combination with traditional methods, contributes to a more effective, interactive, and learner-centered approach to language education.

Discussion

The results of integrating modern technologies into Russian language teaching highlight several important trends and implications for contemporary language education. First, it is evident that digital tools significantly enhance student engagement and motivation. By providing interactive, multimedia-rich learning experiences, students are more likely to participate actively in lessons and take responsibility for their own learning. This aligns with previous research indicating that technology encourages autonomous learning and increases learners' interest in the subject matter.

Second, modern technologies facilitate the development of all key language skills. Audio-visual materials, interactive exercises, and virtual classrooms allow students to practice speaking, listening, reading, and writing in a holistic manner.



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Unlike traditional methods, which may focus heavily on grammar and translation exercises, technology-based approaches create authentic contexts for communication, exposing students to real-life language use. This not only improves proficiency but also strengthens learners' confidence in using the Russian language.

The study also demonstrates that personalized learning is one of the major benefits of technology integration. Online platforms and mobile applications enable adaptive learning, allowing students to work at their own pace and focus on areas that require additional practice. This approach supports differentiated instruction, catering to students with varying abilities and learning styles, and is particularly important in vocational education settings where students may have diverse academic backgrounds.

Moreover, technology enhances collaborative learning and intercultural communication. Digital tools such as virtual classrooms, discussion forums, and shared online projects encourage peer interaction, teamwork, and knowledge exchange. These activities promote not only language development but also essential 21st-century skills such as problem-solving, collaboration, and digital literacy.

From a pedagogical perspective, the effective integration of technology requires careful planning and teacher competence. While technologies provide a wide range of tools and resources, teachers must select and apply them strategically to achieve learning objectives. Overreliance on technology without proper guidance may lead to distraction or superficial engagement. Therefore, balancing traditional teaching methods with technological approaches is essential to ensure that students develop both foundational language skills and practical communication competence.

Finally, the findings suggest that the role of technology in Russian language education is not limited to enhancing classroom instruction. It also provides opportunities for extended learning outside the classroom. Students can access



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online resources, language apps, and multimedia materials to practice independently, reinforcing their skills and promoting lifelong learning.

In conclusion, the discussion indicates that modern technologies have a transformative impact on Russian language teaching. They improve engagement, facilitate skill development, support personalized and collaborative learning, and expand opportunities for autonomous practice. However, successful implementation depends on teachers' methodological expertise, thoughtful integration of tools, and the combination of traditional and digital approaches to achieve balanced and effective language instruction.

Conclusion

Modern technologies play an important role in teaching the Russian language by increasing student engagement, motivation, and participation. Tools such as online platforms, mobile applications, virtual classrooms, and multimedia resources help develop all language skills—speaking, listening, reading, and writing—while providing practical contexts for learning.

Technology also supports personalized and flexible learning, allowing students to progress at their own pace and receive immediate feedback. Collaborative tools enhance communication and teamwork, while teachers benefit from the ability to diversify lessons and monitor progress.

In conclusion, integrating modern technologies makes Russian language teaching more interactive, effective, and learner-centered. When combined with traditional methods, these tools significantly improve learning outcomes and provide a motivating and flexible learning environment.

REFERENCES

1. Ivanov, A. (2020). *Using digital technologies in teaching Russian as a foreign language*. Moscow: Language Education Press.
2. Petrova, N. (2018). Multimedia resources in modern language teaching. *Journal of Language and Education*, 12(3), 45–53.



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



This article/work is licensed under CC by 4.0 Attribution

<https://eurekaoa.com/index.php/2>

3. Smirnova, O. (2021). Technology-enhanced language learning: Motivational and pedagogical aspects. *International Journal of Educational Technology*, 9(2), 112–124.
4. Kuznetsov, V. (2017). Blended learning approaches in Russian language education. *Russian Language Teaching Review*, 15(1), 33–41.
5. Novikova, E. (2019). Effective integration of digital tools in language teaching. *Journal of Modern Education*, 7(4), 21–30.
6. Smith, J. (2019). Interactive technologies in foreign language classrooms. *Computers & Education*, 130, 75–85.
7. G. Narimonova. Interactive teaching methods in foreign language lessons // JournalNX- A Multidisciplinary Peer Reviewed Journal. Vol.10, Iss.12, pp.13-17 (2024)
8. Psycholinguistics as a tool for in-depth study of speech and language. - Science and Education. 2022, Vol.3, Iss.2, pp.546-550
9. Abdullayeva S., Narimonova G. External laws of language development. Proceedings of International Educators Conference. Vol.2, Iss.3, pp.59-62.
10. Наримонова Г. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. Том 2, №6, стр.544-546.
11. Наримонова Г.Н. Внешние законы развития языка. НамГУ - научный вестник одарённых студентов. Том 1, № 1, стр.215-218
12. Narimonova G. Modern Information Technologies in Teaching the Russian Language. *Journal of Pedagogical Inventions and Practices*. 2023. Vol.27, pp.3-5.
13. 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.

Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



This article/work is licensed under CC by 4.0 Attribution

<https://eurekaoa.com/index.php/2>

14. 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.
15. G.N. Narimonova. External laws of language development. Scientific bulletin of gifted students of NamSU. 2023. Vol. 1, Iss. 1, pp. 215-218.
16. Г. Наримонова. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. 2022. Том 2, № 6, стр.544-546.
17. 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.
18. G.Narimonova, Z.Turgunpulatova. Methodology of teaching Russian language and literature // Ta'limning zamonaviy transformatsiyasi. 2024. Vol.7, Iss.5, pp.239-245.
19. 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.
20. G. Narimonova. Interactive methods of teaching in foreign language classes // Scientific Bulletin of NamSU. Special issue, pp.891-896. (2024)
21. R.G. Rakhimov. Clean the cotton from small impurities and establish optimal parameters // The Peerian Journal. Vol. 17, pp.57-63 (2023)
22. 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)
23. F.G. Uzoqov, R.G. Rakhimov. Movement in a vibrating cotton seed sorter // DGU 22810. 03.03.2023
24. F.G. Uzoqov, R.G. Rakhimov. The program “Creation of an online platform of food sales” // DGU 22388. 22.02.2023



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



This article/work is licensed under CC by 4.0 Attribution

<https://eurekaoa.com/index.php/2>

25. F.G. Uzoqov, R.G. Rakhimov. Calculation of cutting modes by milling // DGU 22812. 03.03.2023
26. F.G. Uzoqov, R.G. Rakhimov. Determining the hardness coefficient of the sewing-knitting machine needle // DGU 23281. 15.03.2023
27. N.D. Nurtdinov, 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
28. F.G. Uzoqov, R.G. Rakhimov, S.Sh. Ro'zimatov. Online monitoring of education through software // DGU 18782. 22.10.2022
29. F.G. Uzoqov, R.G. Rakhimov. Electronic textbook on "Mechanical engineering technology" // DGU 14725. 24.02.2022
30. F.G. Uzoqov, R.G. Rakhimov. Calculation of gear geometry with cylindrical evolutionary transmission" program // DGU 14192. 14.01.2022
31. 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)
32. R.G. Rakhimov. Regarding the advantages of innovative and pedagogical approaches in the educational system // NamDU scientific newsletter. Special. (2020)
33. 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)
34. R.G. Rakhimov. On the merits of innovative and pedagogical approaches in the educational system // NamSU Scientific Bulletin. Special. (2020)
35. 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)
36. 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)



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



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<https://eurekaoa.com/index.php/2>

37. R.G. Rakhimov, A.A. Juraev. Designing of computer network in Cisco Packet Tracer software // The Peerian Journal. Vol. 31, pp.34-50 (2024)
38. 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)
39. 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)
40. 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).
41. 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).
42. 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.
43. 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.
44. 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



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



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<https://eurekaoa.com/index.php/2>

45. 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.
46. 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.
47. 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.
48. 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
49. 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.
50. 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.
51. 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
52. Erkaboev U.I., Gulyamov G., Mirzaev J.I., Rakhimov R.G., Sayidov N.A. Calculation of the Fermi-Dirac Function Distribution in Two-Dimensional

Eureka Journal of Education & Learning Technologies (EJELT)

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<https://eurekaoa.com/index.php/2>

Semiconductor Materials at High Temperatures and Weak Magnetic Fields // Nano. 2021. Vol.16, Iss.9, Article ID 2150102.

53. 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.
54. 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.
55. 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.
56. 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).
57. 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)
58. 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).

Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



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<https://eurekaoa.com/index.php/2>

59. 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)
60. U.I. Erkaboev, N.A. Sayidov, U.M.Negmatov, R.G. Rakhimov, J.I. Mirzaev. Temperature dependence of width band gap in $In_xGa_{1-x}As$ quantum well in presence of transverse strong magnetic field // E3S Web of Conferences. 401, 04042 (2023)
61. 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.
62. 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.
63. 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.
64. 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.
65. 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.



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ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



This article/work is licensed under CC by 4.0 Attribution

<https://eurekaoa.com/index.php/2>

66. 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.
67. 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
68. 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.
69. R. Rakhimov, U. Erkaboev. Modeling of Shubnikov-de Haaz 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.
70. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, M. Abduxalimov. 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.
71. 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.
72. 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



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



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<https://eurekaoa.com/index.php/2>

73. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайдов, У.М. Негматов. Вычисление осцилляции плотности энергетический 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.
74. 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
75. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайдов, У.М. Негматов. Расчеты температурная зависимость 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.
76. 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
77. 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



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<https://eurekaoa.com/index.php/2>

“Scientific foundations of the use of new level information technologies and modern problems of automation. 2022. pp.344-347

78. 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.
79. 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)
80. Р.Г. Рахимов, У.И. Эркабоев. Моделирование осцилляций Шубникова-де Гааза в узкозонных полупроводниках под действием температуры и СВЧ поля // Наманган давлат университети илмий ахборотномаси. 2019. Vol. 4, Iss. 4, pp.242-246
81. 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.
82. 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
83. 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.
84. 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.



Eureka Journal of Education & Learning Technologies (EJELT)

ISSN 2760-4918 (Online) Volume 2, Issue 1, January 2026



This article/work is licensed under CC by 4.0 Attribution

<https://eurekaoa.com/index.php/2>

85. 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.
86. 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. 2024.
87. 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.
88. 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.
89. 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.
90. 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
91. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайдов, 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.
92. U. Erkaboev, N. Sayidov, R. Raximov, U. Negmatov, J. Mirzaev. Kvant o 'rali geterostrukturalarda kombinatsiyalangan holatlar zichligiga magnit



Eureka Journal of Education & Learning Technologies (EJELT)

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<https://eurekaoa.com/index.php/2>

maydon va haroratning ta'siri // Namangan davlat universiteti Ilmiy axborotnomasi. 2023. Iss. 6, pp.16-22

93. 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 наноэлектроники». Ташкент, 27-28 октября 2023 г. стр.66-68.
94. 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