

THE CONCEPT AND FUNCTIONS OF EUPHEMISMS IN LANGUAGE

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Abstract

Euphemisms play an important role in social communication, helping to reduce emotional stress and create comfortable conditions for interaction in society.

Keywords: Euphemisms, softening, veiling, direct expression, sensitive topics.

Introduction

Euphemisms have ancient roots and are linked to the development of human speech and culture. They first appeared in archaic societies, where certain words and expressions were considered dangerous or magical. People believed that pronouncing the name of an evil spirit or disaster could cause it to appear, so they replaced these words with safer ones.

For example, in the mythologies of different peoples there were substitutes for the name of the devil or death. In ancient Greece and Rome, euphemisms were used to denote undesirable phenomena such as death, illness, and punishment. The Greeks might say "passage to another world" instead of "death." In Rome, instead of "execution," they might use the expression "act of justice."

In medieval Europe, euphemisms were widely used in religious and social life. For example, people avoided directly mentioing the disease, calling leprosy a "holy disease." During this period, the church and moral norms also influenced the formation of euphemistic language, since direct expressions of many topics related to bodily functions were considered unacceptable.

Over time, euphemisms have become an integral part of language, reflecting changes in culture and social norms. In the 18th-19th centuries, when etiquette and politeness standards were being formed, their use became especially important in diplomacy and secular communication. In the 20th-21st centuries, euphemisms became widespread in politics, business, advertising and the media, serving as a tool for manipulation and speech correctness.

Euphemisms are linguistic expressions that soften or replace words and phrases that can be perceived as rude, unacceptable or undesirable. In media texts, euphemisms play an important role in shaping public opinion, regulating the emotional perception of information and maintaining political correctness. They are used in politics, economics, advertising, social discussions and even in entertainment materials. In addition, euphemisms can serve as a tool for social adaptation and increasing the level of tolerance in society.

Functions of euphemisms in media

Softening negative information. Journalists often use euphemisms in news and analytical materials to smooth over sharp edges. For example, instead of "dismissal" they use "optimization of personnel", and instead of "military actions" they use "force operation". Such expressions reduce anxiety in the audience and make the information less harsh. They also help to form a more positive attitude towards various events.

- 1. Political correctness. In political and public discussions, euphemisms help to avoid discrimination and insults. For example, the word "disabled" is replaced by "person with disabilities", and "homeless" by "person without a fixed abode". This contributes to a more respectful attitude towards socially vulnerable groups. Political correctness in the media also plays an important role in reducing social tension.
- 2. Manipulation of public opinion. The media, especially in politics and economics, use euphemisms to shift emphasis. For example, tax increases can be presented as "tax system reform", and an economic crisis as "temporary economic difficulties". Such a change in wording allows the authorities to minimize the negative reaction of society. In political PR strategies, euphemisms play a role in managing public consciousness.
- 3. Commercial appeal. In advertising, euphemisms help create a more positive impression of a product or service. For example, instead of "used car" they use "used car", and instead of "cheap" "budget". This approach helps to attract customers and increase sales. Euphemisms are also actively used in the HR sphere, when it comes to corporate culture and company presentation. 5. Emotional impact. In fiction and entertainment journalism, euphemisms are used to create a certain mood. For example, obituaries often write "passed away" instead of "died", and cooking shows use the term "alternative meat" instead of "meat substitute", creating a more attractive image of the products. In news about tragedies, the term "death" is often replaced by "loss".

The influence of euphemisms on the perception of information

Euphemisms in the media have a significant impact on public consciousness. They can both reduce anxiety and negative emotions and hide the real state of affairs. For example, in political statements, euphemisms are often used to veil problematic aspects, which makes it difficult to objectively assess the situation. At the same time, in socially sensitive topics, euphemisms help maintain a respectful and neutral tone of discussion.

Some studies in the field of media linguistics show that the constant use of euphemisms leads to a decrease in critical perception of information. For example, the expression "unwanted consequences" instead of "victims" can reduce the emotional response of the audience. At the same time, euphemisms help maintain public peace and stability.

Examples of euphemisms in various fields

- 1. **Politics**:
- "Military intervention" → "peacekeeping mission"
- o "Espionage" → "intelligence gathering"
- o "Censorship" → "editorial policy"

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o "Protests" → "mass gatherings"

2. Economy:

- "Unemployment" → "temporary loss of employment"
- Default" → "debt restructuring"
- □ "Corruption" → "opaque financial transactions"
- o "Wage cuts" → "optimization of employee income"

3. Social sphere:

- Old man" → "citizen of golden age"
- "Prison" → "correctional institution"
- o "Prostitution" → "commercial support"
- o "Alcoholism" → "dependence on alcoholic beverages"

4. Medicine:

- "Death" → "passing away"
- o "Oncological disease" → "serious diagnosis"
- o "Mental disorder" → "emotional difficulties"
- o "Abortion" → "termination of pregnancy"

5. Advertising and marketing:

- \circ "Cheap" \rightarrow "economy"
- \circ "Used" \rightarrow "used car"
- "Fast food" → "fast food"
- o "Discounted goods" → "special offer"

Euphemisms play an important role in media texts, performing both positive and potentially manipulative functions. Their use requires caution so as not to distort reality, but to maintain a balance between tact and objectivity. In the conditions of the information society, it is important to be critical of the language of the media, analyzing what goals journalists pursue and what meanings are hidden behind soft formulations.

Understanding the mechanisms of the use of euphemisms in the media can help the audience consciously perceive information, distinguish facts from manipulations and develop critical thinking. In the modern world, where information plays a key role, the ability to analyze the language of the media is becoming an important skill for every person. In the long term, this contributes to the formation of a more informed and meaningful society.

Language game in mass media

Language play is an important phenomenon in the modern media space. Mass media use various linguistic techniques to attract the attention of the audience, increase the memorability of messages and form a certain public opinion. Language play is expressed through puns,

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neologisms, intertextual references, allusions and other stylistic devices that make the text more expressive and convincing.

With the development of technology and digital platforms, language play is becoming increasingly relevant. Internet media, social networks, advertising campaigns and bloggers actively use non-standard speech constructions to increase user engagement. Language play not only entertains, but also performs an important communicative function, helping to create a certain atmosphere of communication and audience identification. Language play can also be a tool of manipulation, since it helps to shape the audience's opinion and emphasize the desired meanings in the information agenda.

Historically, language play was characteristic of fiction and oral folk tradition. However, in the 21st century, this technique has become widespread and is widely used in political rhetoric, marketing, advertising, and even official government announcements. For example, during election campaigns, politicians use memorable verbal constructions and puns to influence voters. The media space has seen many striking examples of language play, such as corporate slogans, viral Internet memes, and news headlines built on wordplay.

In addition to traditional media, language play is actively developing in the digital environment. Virtual communities, forums, video bloggers, as well as brands and companies use this technique to create a recognizable image and increase audience engagement. For example, advertising campaigns using non-standard slogans and memes contribute to the rapid dissemination of information on the Internet.

1. The concept of language game.

The term "language game" was introduced by Ludwig Wittgenstein and initially referred to the philosophical aspects of language use. In the context of mass media, language game implies the use of non-standard, creative approaches to the formation of messages, which contributes to their better perception and emotional response of the audience.

The main characteristics of language game in media texts:

- Deviation from linguistic norms for the sake of expressiveness.
- Use of irony, parody and other stylistic devices.
- Creation of new words and phraseological units.
- Use of polysemy of words

. Functions of language play in the media

Language play performs several key functions:

- 1. Attractive function attracts the audience's attention, making the message more noticeable among the information flow.
- 2. **Manipulative function** helps to form an opinion, set certain semantic accents.
- 3. **Entertainment function** creates positive emotions in the audience, making the perception of information easier and more relaxed.
- 4. **Commercial function** used in advertising and marketing to promote goods and services.
- 5. **Aesthetic function** makes media texts more artistic and expressive.



3. Types of language play in mass media

3.1. Puns and wordplay.

Puns are used in headlines, slogans and advertising texts because they help make the message more memorable. For example, the headline "Save your nerves - keep your money in the bank!" combines the meanings of the word "save".

Puns are also common in political rhetoric. For example, the election slogan "Yes, we can!" has become a symbol of hope and change.

3.2. Neologisms

Modern media actively create new words to reflect social and cultural changes. For example, the emergence of words like "covid dissidents," "infogypsies," and "zoomers" demonstrates the dynamism of language.

Advertising and marketing texts often use neologisms to attract attention to a new product. For example, the word "smartphone" was once a neologism, but has now become generally accepted.

3.3. Intertextuality and allusions

Mass media often use references to literature, cinema, and popular culture. For example, the title "Harry Potter and the Order of the Inland Revenue" creates a game based on the famous book. In advertising, intertextual references are used to create the effect of recognition.

3.4. Irony and sarcasm

Satirical publications (e.g. The Onion, "Yozh") actively use language play to criticize political and social phenomena. For example, the headline "Ministry of Health Warns: Life is Dangerous to Health" demonstrates a sarcastic approach to bureaucracy.

4. Language game in online media and social networks

With the development of digital technologies, language play has acquired new forms. Memes, emojis, abbreviations and hashtags, which are part of the language game, are widely spread in social networks. For example, the meme "Oru" (a mixture of "laugh" and "oru") has become popular among young people.

Brands also use language play in their marketing strategies. For example, IKEA is known for its humorous product names, and large corporations create viral advertising campaigns with game elements in the language.

5. The influence of language games on public opinion

Language play not only entertains, but also shapes the audience's attitude to events and personalities. For example, the term "green snake" in relation to alcohol has a negative connotation, while the expression "people's governor" creates a positive image of a politician. Political satire uses hints and metaphors that can change the perception of events and personalities.

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Language play in the mass media is a powerful tool for influencing the audience. It makes information more vivid, memorable and emotionally rich. However, it is important to consider that excessive use of language play can lead to distortion of meaning and manipulation of public consciousness. Therefore, a critical attitude to media texts remains an important task for modern society.

Thus, language play in the media is not just an entertaining tool, but a powerful mechanism for influencing mass consciousness. Its study and comprehension help to better understand modern trends in communication and develop a critical approach to the information consumed.

REFERENCES

- N.A. Baratova. Sequence of formation of contentive speech skills of a child // Science and Education. Vol.5, Iss. 3. pp. 473-475. (2024).
- N. Baratova. Linguocultureme as the main unit of linguoculturological research // Texas Journal of Philology, Culture and History. Vol.31, pp.1-3. (2024)
- Н. Баратова. Модальные слова в поэзии М. Цветаевой // World scientific research journal. Vol. 27, Iss. 1, pp.44-56.(2024).
- N. Baratova. Phraseology of Russian and Uzbek languages as an element of cultural expression // Web of discoveries: Journal of analysis and inventions. Vol.2, Iss.4, pp.99-105 (2024)
- Narimonova N.G. Psycholinguistics as a tool for in-depth study of speech and language. -Science and Education. 2022, Vol.3, Iss.2, pp.546-550
- G. Narimonova. Interactive teaching methods in foreign language lessons // JournalNX-A Multidisciplinary Peer Reviewed Journal. Vol.10, Iss.12, pp.13-17 (2024)
- Psycholinguistics as a tool for in-depth study of speech and language. Science and Education. 2022, Vol.3, Iss.2, pp.546-550
- Abdullayeva S., Narimonova G. External laws of language development. Proceedings of International Educators Conference. Vol.2, Iss.3, pp.59-62.
- Наримонова Г. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. Том 2, №6, стр.544-546.
- 10. Наримонова Г.Н. Внешние законы развития языка. НамГУ научный вестник одарённых студентов. Том 1, № 1, стр.215-218
- 11. Narimonova G. Modern Information Technologies in Teaching the Russian Language. Journal of Pedagogical Inventions and Practices. 2023. Vol.27, pp.3-5.
- 12. 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.
- 13. 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.
- 14. G.N. Narimonova. External laws of language development. Scientific bulletin of gifted students of NamSU. 2023. Vol. 1, Iss. 1, pp. 215-218.
- 15. Г. Наримонова. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. 2022. Том 2, № 6, стр.544-546.



- 16. 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.
- 17. G.Narimonova, Z.Turgunpulatova. Methodology of teaching Russian language and literature // Ta'limning zamonaviy transformatsiyasi. 2024. Vol.7, Iss.5, pp.239-245.
- 18. 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.
- 19. G. Narimonova. Interactive methods of teaching in foreign language classes // Scientific Bulletin of NamSU. Special issue, pp.891-896. (2024)
- 20. R.G. Rakhimov. Clean the cotton from small impurities and establish optimal parameters // The Peerian Journal. Vol. 17, pp.57-63 (2023)
- 21. 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)
- 22. F.G. Uzoqov, R.G. Rakhimov. Movement in a vibrating cotton seed sorter // DGU 22810. 03.03.2023
- 23. F.G. Uzoqov, R.G. Rakhimov. The program "Creation of an online platform of food sales" // DGU 22388. 22.02.2023
- 24. F.G. Uzoqov, R.G. Rakhimov. Calculation of cutting modes by milling // DGU 22812. 03.03.2023
- 25. F.G. Uzoqov, R.G. Rakhimov. Determining the hardness coefficient of the sewing-knitting machine needle // DGU 23281. 15.03.2023
- 26. 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
- 27. F.G. Uzoqov, R.G. Rakhimov, S.Sh. Ro'zimatov. Online monitoring of education through software // DGU 18782. 22.10.2022
- 28. F.G. Uzoqov, R.G. Rakhimov. Electronic textbook on "Mechanical engineering technology" // DGU 14725. 24.02.2022
- 29. F.G. Uzoqov, R.G. Rakhimov. Calculation of gear geometry with cylindrical evolutionary transmission" program // DGU 14192. 14.01.2022
- 30. 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)
- 31. R.G. Rakhimov. Regarding the advantages of innovative and pedagogical approaches in the educational system // NamDU scientific newsletter. Special. (2020)
- 32. 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)
- 33. R.G. Rakhimov. On the merits of innovative and pedagogical approaches in the educational system // NamSU Scientific Bulletin. Special. (2020)



- 34. 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)
- 35. 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)
- 36. R.G. Rakhimov, A.A. Juraev. Designing of computer network in Cisco Packet Tracer software // The Peerian Journal. Vol. 31, pp.34-50 (2024)
- 37. 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)
- 38. 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)
- 39. 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).
- 40. 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).
- 41. 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.
- 42. 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.
- 43. 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
- 44. 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.
- 45. Gulyamov G., Erkaboev U.I., Rakhimov R.G., Mirzaev J.I. On temperature dependence of longitudinal electrical conductivity oscillations in narrow-gap semiconductors // Journal of Nano- and Electronic Physic. 2020. Vol.12, Iss.3, Article ID 03012.
- 46. 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.



- 47. 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
- 48. 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.
- 49. 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.
- 50. 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
- 51. 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.
- 52. 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.
- 53. 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.
- 54. 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.
- 55. 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).
- 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)
- 57. 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).
- 58. 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)
- 59. 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)
- 60. 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.
- 61. 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.
- 62. U.I. Erkaboev, R.G. Rakhimov. Determination of the dependence of the oscillation of transverse electrical conductivity and magnetoresistance on temperature heterostructures based on quantum wells // East European Journal of Physics. 2023. Iss.3, pp.133-145.
- 63. 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.
- 64. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Savidov, 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.
- 65. 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.
- 66. 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
- 67. 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.
- 68. 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.
- 69. 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.



- 70. 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.
- 71. 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
- 72. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, 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.
- 73. 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
- 74. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов. Расчеты температурная зависимость энергетического спектра электронов и дырок в разрешенной зоны 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.
- 75. 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
- 76. 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
- 77. 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.
- 78. 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)
- 79. 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
- 80. 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.
- 81. 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
- 82. 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.
- 83. 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.
- 84. 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.
- 85. 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.
- 86. 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.
- 87. 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.
- 88. A.M. Sultanov, E.K. Yusupov, R.G. Rakhimov. Investigation of the Influence of Technological Factors on High-Voltage p⁰–n⁰ Junctions Based on GaAs // Journal of Nano- and Electronic Physics. 2024. Vol. 16, Iss. 2, Article ID 01006.
- 89. 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
- 90. 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.
- 91. 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



- 92. 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.
- 93. 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