

Summary

Zhakatayev Toksan Aiypkhanovich, Doctor of Technical Sciences, Candidate of Physical and Mathematical Sciences, Theoretical Physicist. Mob. tel.87029568570; E-mail: Toksanzh@yandex.kz

University of education (year of graduation): Karaganda State University named after Academician E. A. Buketov. Department of Physics, Department of Theoretical Physics, 1978 Specialty: Physicist. Teacher. Diploma with honors No. 068933. The term of study is 5 years.

Field of scientific specialization: General and theoretical electrical engineering, heat engineering, technical physics. Methods of mathematical modeling of physical and technical processes and numerical solution of applied problems on computers in the field of electric power industry. Statistical processing of experimental data using probability theory.

Read special courses and disciplines: Theory and methods of calculating electrical and magnetic circuits. Technical electronics. Methods of mathematical modeling and numerical solution of applied problems on electrical engineering on computers. Theory and practice of automated control systems and electric drives. Methods of statistical processing and analysis of experimental data using probability theory. High Voltage Technique.

Brief work biography: 01.09.1973-09.06.1978 - student of KSU, Faculty of Physics; 1978 trainee researcher at KSU; 1980 - graduate student of the Faculty of Physics of KazSU named after S. M. Kirov (currently Al Farabi KazNU), Almaty; 1984 - lecturer at the Department of Thermophysics, KSU; 1988 - Candidate of Physical and Mathematical Sciences, diploma of the Higher Attestation Commission of the USSR Moscow; 2002-2005 - doctoral student of KSU named after E. A. Buketov; 2011-Doctor of Technical Sciences; 2013 - Professor of the Department of Engineering Thermophysics named after Prof. Akylbayev Zh.S. "KSU named after E.A. Buketov; 2014 - senior lecturer at the Department of Metallurgy, Materials Science and Nanotechnology, Faculty of Engineering, KSTU; 2015- and. about. Associate Professor, 2016 - Acting Professor of the Department of Heat and Power Engineering, 2020-2021 and. about. Associate Professor of the Department of RET, Faculty of Physics and Technology, ENU named L.N. named Gumilyov; 08.09.2021-30.08.2022 Associate Professor, Department of IT, Faculty of Business and Information Technologies, Turan-Astana University; 13.09.2022 - Art. Teacher of the Department of Heat and Power Engineering of the Transport and Energy Faculty of the ENU L.N. named Gumilyov; 04.01.2023 - Art. teacher of the cafe. Electric power engineering of the Transport and Energy Faculty of the ENU named L.N. Gumilyov.

Awards and incentives: Jubilee medal in honor of the 40th anniversary of KSU named E.A. Buketov, 2012; Prize named Prof. Aryngazin K.M., KSU named E. A. Buketov, 2011; Letter of thanks from Karaganda Regional Maslikhat, 2011, KSU named E. A. Buketov; Letter of thanks from the rector of the ENU named L.N.

Gumilyov E. B. Sydykov for active participation in the Republican Student Subject Olympiad in 2016.

The total number of publications: 90 - scientific publications, 1- author's certificate, 1 - pred-patent, 1- innovative patent, 5 - educational and methodological publications, two books are published on the international educational website Znanio.ru, one on the website Twirpx.com. In 2022, a textbook in the Kazakh language "Physical Chemistry, Thermochemistry and fundamentals of corrosion theory" was published - ISBN 978-601-7616-85-4, UDC 544 (075.8). Most articles and books are presented on the Internet in open free access.

Some characteristic scientific works:

- Zhakatayev T. , Kakimova K. , Taukenova L., Serikov T. Simulation and Calculation of Heat Transfer in Multilayer Wall Structures Based on Iterative Models//Journal of Siberian Federal University. Engineering&Technologies.- Krasnoyarsk, 2022, № 5, V. 15, 622-633 p. The magazine is included in the databases and indexed: Web of Science, Elibrary.ru, Google Scholar, EBSCO, Ulrichs Web, Pro Quest, Readera, CyberLeninka, DOI. Входит в перечень журналов HAS RF. IF РИНЦ=0.231.

<https://www.elibrary.ru/item.asp?id=49371596>

<https://cyberleninka.ru/journal/n/zhurnal-sibirskogo-federalnogo-universiteta-tehnika-i-tehnologii?i=1109730>

- Zhakatayev T., Kakimova K. A new type of protective weapon based on the creation of a rotating Powerful intensive beam of electromagnetic waves (EMW) high frequencies (HF) Microwave//American Journal of Physics and Applications Volume 9, Issue 3, May 2021, Pages: 59-63; Received: Jun. 17, 2021; Accepted: Jul. 2, 2021.

<http://www.sciencepublishinggroup.com/journal/paperinfo?journalid=622&doi=10.11648/j.ajpa.20210903.12;>

- Toksan A. Zhakatayev. About the Possibility of the Bulk Thermo Gradient Effect Use for the Creation of the Effective Thermobattery//Journal of Siberian Federal University Engineering & Technologies.- Krasnoyarsk, 2020 г.- №1 (13). - С. 5-13. The magazine is included in the databases and indexed: Web of Science, Elibrary.ru, Google Scholar, EBSCO, Ulrichs Web, Pro Quest, Readera, CyberLeninka, DOI. Included in the list of magazine ВАК РФ. IF РИНЦ = 0.231 <https://search.proquest.com/openview/c4cd1f2daeb5c78819c6b0b1b305d21d/1.pdf?pq-origsite=gscholar&cbl=2035023;journal.sfu-kras.ru/en/article/134935; journal.sfu-kras.ru/number/134934;>

- Zhakatayev T. A., Sakipov K. E., Kakimova K.Sh., Aitmagambetova M. B. About Some Properties and Features of Differential and Integrated Representations In The Theory of Thermodynamics Functions// Journal of Siberian Federal University. Engineering & Technologies.- Krasnoyarsk, 2016.- № 9 (8).- P. 1314-1325. The magazine is included in the databases and indexed: Web of Science, Elibrary.ru, Google Scholar, EBSCO, Ulrichs Web, Pro Quest, Readera, CyberLeninka, DOI. Included in the list of magazine HAS RF. IF РИНЦ = 0.231 . <http://elib.sfu-kras.ru/handle/2311/30354> ; [journal.sfu-kras.ru/en/article/30354;](http://journal.sfu-kras.ru/en/article/30354)

- Zhakatayev T.A., Kakimova K.Sh. About Possibility of Mixing of Liquid Metal with External Rotational Magnetic Field//Journal of Siberian University. Engineering & Technologies.-Krasnoyarsk, 2012.- № 5, P. 568-578. The magazine is included in the databases and indexed: Web of Science, Elibrary.ru, Google Scholar, EBSCO, Ulrichs Web, Pro Quest, Readera, CyberLeninka, DOI. Included in the list of journals of the Higher Attestation Commission of the Russian Federation. IF RSCI = 0.231. <http://journal.sfu-kras.ru/series/technologies/2012/5> ; journal.sfu-kras.ru/en/article/3205;
- Zhakataev T.A. Modeling and calculation of turbulent flare based on universal and integral formulas//Heavy mechanical engineering. Scientific and Production Journal. - Moscow, 2007.- No. 3. - S. 27-31. WOS, IF RSCI +;
- Zhakatayev T. A., Zhakatayev A. T. Iterative calculation of nonlinear interaction and motions of planets in solar system//Eurasian physical technical journal.- Karaganda State University named after Buketov E.A., 2009.- Vol. 6.-№2(12) – P. 41-47. The magazine is a candidate for Scopus;
- Zhakataev T. A. Calculation of heat transfer in the coolant-pipe system - external environment under variable boundary conditions and physical parameters//Energy problems. - Izvestia universities of the Ministry of Defense of the Russian Federation. - Kazan: KEU.- 2000.- No. 7-8.- S. 9-16. IF RSCI = 0.132;
- Zhakatayev T. A., Kusaiynov K. On computation of magnetic fields in closed ring circuits of wind electric power generators//Eurasian Physical Technical Journal.- Karaganda State University.-2014.- № 1.- P.61-66. The magazine is a candidate for Scopus;
- Zhakatayev T.A., Tlebaldiyeva L.Sh. Formulas for the thin Lenses at Various Orientation of Refracting Surfaces//Eastern European Scientific Journal.- №6-2014.- Coverbild: AURIS Kommunikations- und Verlagsgesellschaft mbH/www.auris-verlag.de.-P.268-276. <http://www.auris-verlag.de/index.html> по ссылке Journal и далее Eastern European Scientific Journal Dezember 2014 или <http://www.auris-verlag.de/journale.html> and http://www.auris-verlag.de/mediapool/99/990918/data/DOI_10.12851_EESJ201412.pdf Included in international databases: DOI, Scholar Google, E-Libraray.ru;
- Zhakatayev T.A. Circular Flow in the inter-jet Zone of a system of free turbulent Jets//Journal of Applied Mechanics and Technical Physics.- Springer.- 1993.- № 4.- P. 97-99. IF = 0.233. Registered and listed in: www.springer.com/physics/...journal/10808. Included in database JCR;
- Zhakataev T.A. Calculation of the impurity concentration field in the axisymmetric turbulent jet of the final initial size//Energy problems. - Izvestia of universities of the Ministry of Defense of the Russian Federation. - Kazan: KEY.- 2002.- No. 5-6. - S.3-9. IF RSCI = 0.132. Included in the list of the Higher Attestation Commission of the Russian Federation.
- Zhakatayev T.A. Calculation of the heat exchange of the sphere under variable boundary conditions and physical parameters//Energy problems. - Izvestia of universities of the Ministry of Defense of the Russian Federation. - Kazan: KEU. -

2002.- № 7-8. - S. 8-16. IF RSCI = 0.132. Included in the list of the Higher Attestation Commission of the RF;

-Zhakatayev T. A. About the possible upper limit of k.p.d. gas water heating plant//Energy problems. - Izvestia of universities of the Ministry of Defense of the Russian Federation. - Kazan: KEU.- 2004.- No. 5 - 6. - S. 114-117. IF RSCI = 0.132. Included in the list of the Higher Attestation Commission of the Russian Federation;

- Zhakataev T. A. About one model for determining the composition of gas and the error of gas meters by the reverse problem method//Energy problems. - Izvestia of universities of the Ministry of Defense of the Russian Federation. - Kazan: KEU.- 2004.- No. 9 - 10.- S. 111-115. IF RSCI = 0.132. Included in the list of the Higher Attestation Commission of the Russian Federation;

- Zhakataev T. A., Kakimova K. Sh., Zhakataev A. T. Iterative algorithm for calculating nonlinear circuits in devices for magnetic separation of iron-containing ores. - Published in G-Global on January 22, 2017, has over 7,870 views in one year. All comments are positive;

- Физикалық химия, термохимия және коррозия теориясы негіздері. International online edition, e-book in Kazakh. RF. Copyright certificate of publication in the media MP-0345473 From 23.04.2019 Authentication: <https://znanio.ru/p/MP-0345473>; The manual is also posted on a well-known website twirpx.com. The reviews are positive. Authentication: <https://znanio.ru/p/МП-0345473>;

https://znanio.ru/media/korroziya_teoriyasy_zhne_fizikalny_himya_negzder-45473;

- “Физикалық химия, термохимия және коррозия теориясы негіздері” was published in 2022 in Kazakh language, ISBN 978-601-7616-85-4, UDC 544(075.8), ВБК 24.5я73, volume 13 p.p.

- Zhakatayev T.A. Theory and calculation of turbulent ventilation jets and some practical problems of heat and mass exchange and combustion. International online edition, e-book. RF. Copyright certificate of publication in the media MP-2624918 From 30.07.2020; Authentication: <https://znanio.ru/p/МП-2624918>; <https://znanio.ru/media/theory-and-calculation-of-turbulent-ventilation-jets-and-some-practical-problems-of-heat-and-mass-exchange-and-combustion-2624918> .

Community service:

- On the website Your Vision.kz has a personal page "Yvision.kz Zhakataev T. A.," where, in the form of a distance physics and technology school, he conducts a correspondence course on solving Olympiad problems in: theory and calculations of electric and magnetic circuits, electrical engineering, radio engineering, heat engineering and technical physics;

- in 2018-2023 developed an electronic course of video lectures in the Kazakh language on courses: general physics for technical universities, theory and calculations of electrical and magnetic circuits, electrical engineering. Most of which are posted on the You-Tube channel on the page with the name “Toksan Zhakatayev”.

Applied research: has 4 implementations in production, participated in the implementation of budgetary and non-contractual topics, scientific contacts with

KartTU named after A. Saginov and with KarU named after E. A. Buketov in Karaganda.

Knowledge of languages: Kazakh and Russian - fluent, English - translates texts with a dictionary.