

Key Members of the Research Team:

#	Last name, first name, patronymic (if applicable), education, academic degree, academic rank	H-index, ResearcherID, ORCID, Scopus Author ID (if available)	Links to profiles in Scopus, Web of Science, ORCID	Publication list (with links) and patents
1	Mukhamedov Nurzhan Yerolovich, PhD, Associate Professor	h-index: 6, ResearcherID: DXG-5120-2022, ORCID ID: 0000-0002-6672-180X, Scopus Author ID: 57191578278	https://www.scopus.com/authid/detail.uri?authorId=57191578278 https://www.webofscience.com/wos/author/record/39383609 https://orcid.org/00000002-6672-180X	<p>Author of more than 40 scientific publications.</p> <p>Key scientific efforts:</p> <ol style="list-style-type: none"> 1. Mukhamedov N.Ye., Tskhe V.K., Sapatayev Ye.Ye., Kukushkin I.M. Microstructure and mechanical properties of the LWR solidifiedmelt prototype obtained by the out-of-pile experiment // Annals of Nuclear Energy. – 2021. – Vol.163. – 108594. https://doi.org/10.1016/j.anucene.2021.108594 2. Kozhakhmetov Y.A., Skakov M.K., Kurbanbekov S.R., Mukhamedova N.M., Mukhamedov N.Y. Powder Composition Structurization of the Ti-25Al-25Nb (at.%) System upon Mechanical Activation and Subsequent Spark Plasma Sintering // Eurasian Chemico-Technological Journal 23 (2021). – P.37–44. https://doi.org/10.18321/ectj1032 3. Tskhe V.K., Mukhamedov N.Ye., Gaydaychuk V.A., Kozlovskiy Ye.V., Gradoboev A.V. The method of the reactivity margin calculation required for the IGR reactor start-up in the «Pulse» mode // Annals of Nuclear Energy. – 2022. – Vol.168. – 108875. https://doi.org/10.1016/j.anucene.2021.108875 4. Mukhamedov N.Ye., Kozhakhmetov Ye.A., Tskhe V.K. Microstructure and mechanical properties of the solidified melt obtained by the in-pile test // Annals of Nuclear Energy. – 2022. Vol.179. – 109404. https://doi.org/10.1016/j.anucene.2022.109404 5. Mukhamedova N., Kozhakhmetov Ye., Skakov M., Kurbanbekov S., Mukhamedov N. Microstructural stability of a two-phase (O + B2) alloy of the Ti–25Al–25Nb system (at.%) during thermal cycling in a hydrogen atmosphere // AIMS Materials Science. – 2022. – Vol.9 (2). – P.270-282 https://doi.org/10.3934/MATERSCI.2022016 6. Suleimenov N.A., Mukhamedov N.Ye., Kotov V.M. Influence of radiation heating of structural materials of an experimental device with a neutron converter on their temperature regime // Bulletin NNC RK. – 2020. – Issue 4. – pp. 61–68. https://journals.nnc.kz/jour/article/view/292 7. Zhanbolatov O.M., Irkimbekov R.A., Mukhamedov N.Ye. Calculation of the power distribution of an experimental device with a neutron converter // Bulletin NNC RK. – 2020. – Issue 4. – pp. 82–87. https://journals.nnc.kz/jour/article/view/295 <p>Patents:</p> <ol style="list-style-type: none"> 1. Patent of the Republic of Kazakhstan for Invention No. 35307. Ampoule irradiation device for studying the final stage of a severe reactor accident / Vurim A.D., Pakhnits A.V., Khametov S.Z., Bogomolova I.N., Mukhamedov N.Ye., Tskhe V.K., Dolzhikov S.A.; applicant and patent holder: RSE NNC RK – No. 2020/0494.1; filed: 27.04.2020; published: 24.12.2021; Bulletin No. 51. 2. Patent of the Republic of Kazakhstan for Invention No. 34494. Device for studying the destruction process of the lower support plate of the guide tube of the control rod of the reactor control and protection system under severe nuclear power reactor accident conditions / Skakov M.K., Vurim A.D., Mukhamedov N.Ye., Batyrbekov E.G., Pakhnits A.V., Tskhe V.K.; applicant and patent holder: RSE NNC RK – No. 2019/0236.1; filed: 05.04.2019; published: 09.10.2020; Bulletin No. 40.
2	Gnyrya Vyacheslav Sergeevich, Candidate of Technical Sciences	h-index: 10, ResearcherID Web of Science: CSS-2015-2022; https://orcid.org/0000-0002-0083-1686 ; Scopus Author ID: 56270548000	https://www.scopus.com/authid/detail.uri?authorId=56270548000 https://orcid.org/0000-0002-0083-1686 https://www.webofscience.com/wos/author/record/8412421	<p>Author of more than 40 scientific publications.</p> <p>Key scientific efforts:</p> <ol style="list-style-type: none"> 1. Kulsartov T.V., Zaurbekova Zh.A., Ponkratov Yu.V., Gnyrya V.S. In-situ determination of parameters of hydrogen isotopes interaction with materials using dynamic sorption method // Fusion Science and Technology. – 2020. – Vol.76, Issue 3. – P.333-340. https://doi.org/10.1080/15361055.2020.1712006 2. Kashaykin P.F., Tomashuk A.L., Vasiliev S.A., Britskiy V.A., Ignatyev A.D., Ponkratov Y.V., Kulsartov T.V., Samarkhanov K.K., Gnyrya V.S., Zarenbin A.V., Semjonov S.L. Radiation Resistance of Single-Mode Optical Fibers at $\lambda = 1.55 \mu\text{m}$ under Irradiation at IVG.1M Nuclear Reactor // IEEE Transactions on Nuclear Science. – 2020. – Vol.67, Issue 10. – #9177171. – P.2162-2171. https://doi.org/10.1109/TNS.2020.3019404

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				<p>3. Gnyrya V., Gordienko Yu., Surayev A., Baklanova Yu., Vityuk G.A. et al. Experimental device design justification for radiation resistance tests of single-mode optical fibers and FBG-based sensors at the IVG.1M reactor // Journal of Physics: Conference Series 2155. – 2022. – 012019. https://doi.org/10.1088/1742-6596/2155/1/012019 (Scopus – 18%, Q4, CiteScore –0,8).</p> <p>4. Gnyrya V.S., Tyurin Yu.I., Kashaykin P.F., Kulsartov T.V., Kenzhina I.E., Zaurbekova Zh.A., Samarkhanov K.K., Gordienko Yu.N., Ponkratov Yu.V., Askerbekov S.K., Tolenova A.U., Shaimerdenov A.A. A technique for conducting of reactor in-situ tests of optical fibres and FBG-sensors intended for in-vessel applications in thermonuclear facilities // Fusion Engineering and Design 191 (2023) 113787. https://doi.org/10.1016/j.fusengdes.2023.113787</p> <p>5. Sabitova R., Popov Yu., Irkimbekov R., Prozorova I., Derbyshev I., Nurzhanov E., Surayev A., Gnyrya V., Azimkhanov A. Results of Experiments under the Physical Start-Up Program of the IVG.1M Reactor. Energies 2023, 16, 6263. https://doi.org/10.3390/en16176263</p> <p>Patents: 1. Patent of the Republic of Kazakhstan for Utility Model No. 4912. Ampoule device for the study of tritium-generating materials / Ponkratov Yu.V., Skakov M.K., Barsukov N.I., Gordienko Yu.N., Zaurbekova Zh.A., Karambaeva I.S., Gnyrya V.S.; applicant and patent holder: RSE NNC RK – No. 2020/0180.2; filed: 27.06.2018; published: 06.05.2020; Bulletin No. 18.</p>
3	Pakhnits Alexander Vladimirovich, Higher Education	h-index: 4, ResearcherID: IFT-9603-2023, Scopus Author ID: 22836387900	https://www.scopus.com/authid/detail.uri?authorId=22836387900 https://www.webofscience.com/ws/author/record/42969586	<p>Author of more than 50 scientific publications.</p> <p>Key scientific efforts:</p> <p>1. Vityuk G., Vurim A., Skakov M., Pakhnits A. Methods and results of determining the impurity gas amount in ceramic fuel // Annals of Nuclear Energy. – 2021. – Vol.150. – 107843 https://doi.org/10.1016/j.anucene.2020.107843 (Scopus: 66%, Q1, CiteScore – 3,5; WoS: 63.24%, Q2, IF 1.81).</p> <p>2. Skakov M.K., Mukhamedov N.Ye., Pakhnits A.V., Deryavko I.I. Properties of the melt of nuclear reactor core materials obtained at the IGR research reactor // Bulletin NNC RK. – 2019. – Issue 1. – pp. 129–132. (IF = 0.164, KazBCI) https://journals.nnc.kz/jour/article/view/54/54</p> <p>3. Suleimenov N.A., Pakhnits A.V., Suraev A.S. In-pile experiment on testing a fast reactor fuel rod under loss-of-coolant accident conditions // Bulletin NNC RK. – 2019. – Issue 1 (77). – pp. 133–138. (IF = 0.164, KazBCI).</p> <p>Patents: 1. Patent of the Republic of Kazakhstan for Invention No. 35307. Ampoule irradiation device for studying the final stage of a severe reactor accident / Vurim A.D., Pakhnits A.V., Khametov S.Z., Bogomolova I.N., Mukhamedov N.Ye., Tskhe V.K., Dolzhikov S.A.; applicant and patent holder: RSE NNC RK – No. 2020/0494.1; filed: 27.04.2020; published: 24.12.2021; Bulletin No. 51.</p> <p>2. Patent of the Republic of Kazakhstan for Invention No. 34838. Device for testing fuel rods in the experimental channel of a research reactor / Skakov M.K., Vurim A.D., Vityuk G.A., Vityuk V.A., Pakhnits A.V., Bogomolova I.N.; applicant and patent holder: RSE NNC RK – No. 2019/0873.1; filed: 03.12.2019; published: 04.06.2021; Bulletin No. 22.</p> <p>3. Patent of the Republic of Kazakhstan for Invention No. 34494. Device for studying the destruction process of the lower support plate of the guide tube of the control rod of the reactor control and protection system under severe nuclear reactor accident conditions / Skakov M.K., Vurim A.D., Mukhamedov N.Ye., Batyrbekov E.G., Pakhnits A.V., Tskhe V.K.; applicant and patent holder: RSE NNC RK – No. 2019/0236.1; filed: 05.04.2019; published: 09.10.2020; Bulletin No. 40.</p>
4	Vityuk Galina Anatolyevna, PhD, Associate Professor	h-index: 6, ResearcherID: GZK-9682-2022,	https://www.scopus.com/authid/detail.uri?authorId=56180224400	<p>Author of more than 80 scientific publications and 4 patents.</p> <p>Key scientific efforts:</p> <p>1. Vityuk G., Vurim A., Skakov M., Pakhnits A. Methods and results of determining the impurity gas amount in ceramic fuel // Annals of Nuclear Energy. – 2021. – Vol.150. – 107843, https://doi.org/10.1016/j.anucene.2020.107843</p>

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		ORCID ID: 0000-0003-3321-8682, Scopus Author ID: 56180224400	https://www.webofscience.com/ws/author/record/GZK-9682-2022 https://orcid.org/0000-0003-3321-8682	<p>2. Batyrbekov E., Vityuk V., Vurim A., Vityuk G. Experimental opportunities and main results of the impulse graphite reactor use for research in safety area // Annals of Nuclear Energy. –2023. –Vol. 182. 109582. https://doi.org/10.1016/j.anucene.2022.109582</p> <p>3. Irkimbekov R., Vurim A., Vityuk G., Zhanbolatov O., Kozhabayev Z., Surayev A. Modeling of Dynamic Operation Modes of IVG.1M Reactor // Energies. – 2023. – Vol 16 (2). art. no. 932. https://doi.org/10.3390/en16020932</p> <p>4. Irkimbekov R.A., Surayev A.S., Vityuk G.A., Zhanbolatov O.M., Kozhabayev Z.B., Bedenko S.V., Ghal-Eh N., Vurim A.D. Study on an open fuel cycle of IVG.1M research reactor operating with LEU-fuel // Nuclear Engineering and Technology. –2023. –Vol. 55, Issue 4. –pp. 1439-1447. https://doi.org/10.1016/j.net.2022.12.012</p> <p>5. Vityuk V., Vityuk G., Vurim A., Irkimbekov R., Kukushkin I., Surayev A., Mukhamedov N. Testing of a heterogeneous fuel rod in the research Impulse graphite reactor // Progress in Nuclear Energy. –2023. – Volume 164, 104889. https://doi.org/10.1016/j.pnucene.2023.104889</p> <p>6. Kelsingazina R., Vityuk V., Vurim A., Vityuk G., Mukhamedov N., Tikhomirov G. Computational approaches for determining the nuclear heating value of structural materials during the irradiation at the IGR reactor // Annals of Nuclear Energy. –2024. –Vol.204, art. no. 110532. https://doi.org/10.1016/j.anucene.2024.110532</p> <p>7. Mukhamedov N., Kukushkin I., Vityuk V., Vityuk G., Dolzhikov S., Sapatayev Ye. Properties and characteristics of corium prototype of a fast power reactor // Annals of Nuclear Energy. –2025. –Volume 214, 111200. https://doi.org/10.1016/j.anucene.2025.111200</p> <p>8. Mukhamedov N., Toleubekov K., Vityuk G., Bekmuldin M., Dolzhikov S. Decommissioning of the BN-350 Fast Neutron Reactor: History Review and Current Status // Energies. –2025. –Vol.18(13), Article 3486. https://doi.org/10.3390/en18133486</p> <p>9. Irkimbekov R.A., Vityuk V.A., Vityuk G.A., Zhanbolatov O.M., Surayev A.S., Popov Yu.A., Kotlyar A.N. Development of a new computational support tool for experiments in the impulse graphite reactor // Nuclear Engineering and Design. –2025. –Volume 443, Article 114278. https://doi.org/10.1016/j.nucengdes.2025.114278</p> <p>10. Vityuk G., Vityuk V., Kelsingazina R., Mukhamedov N., Irkimbekov R. Establishing a relation between the energy parameters of the research impulse graphite reactor and the tested fuel assembly with a block structure // Progress in Nuclear Energy. –2026. – Volume 191, art. no. 106052. https://doi.org/10.1016/j.pnucene.2025.106052</p> <p>Patents:</p> <p>1. Cap of the loop channel ampoule of a reactor // Patent for Invention No. 32510, published 30.11.2017, Bulletin No. 22, https://gosreestr.kazpatent.kz/Invention/Details?docNumber=262996</p> <p>2. Device for testing fuel rods in the experimental channel of a research reactor // Patent for Invention No. 34838, published 04.06.2021, Bulletin No. 22, https://gosreestr.kazpatent.kz/Invention/Details?docNumber=321636</p> <p>3. Experimental device for measuring the temperature of radiation heating of structural materials for nuclear and thermonuclear technology // Patent for Invention No. 36948, published 27.09.2024, Bulletin No. 39, https://gosreestr.kazpatent.kz/Invention/Details?docNumber=380147</p> <p>Protective damping casing for the transportation and storage of ampoule irradiation devices // Patent for Invention No. 11611, published 26.12.2025, Bulletin No. 52 https://gosreestr.kazpatent.kz/Utilitymodel/Details?docNumber=435594</p>
5	Irkimbekov Ruslan Alexandrovich, PhD, Associate Professor	h-index: 7, ResearcherID: G-1992-2017, ORCID ID: 0000-0002-5684-2341, Scopus Author ID: 54890701800	https://www.scopus.com/authid/detail.uri?authorId=54890701800 https://www.webofscience.com/ws/author/record/908595	<p>Author of more than 40 scientific publications.</p> <p>Key scientific efforts:</p> <p>1. Irkimbekov R.A., Zhagiparova L.K., Kotov V.M., Vurim A.D., Gnyrya V.S. Neutronics Model of the IVG.1M Reactor: Development and Critical-State Verification // Atomic Energy. – 2019. – Vol.127, Issue 2. – P.69–76. DOI: https://doi.org/10.1007/s10512-019-00587-1 (IF = 0,302, БД WoS)</p>

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			https://orcid.org/00000002-5684-2341	<p>2. Bedenko S.V., Vlaskin G.N., Ghal-Eh N., Lutsik I. O., Irkimbekov R., Rahmani F., Vega-Carrillo H., Nedis-Serpent R. Simulation of a Neutron Source Assembly with Complex Internal Heterogeneous Structure // Applied Radiation and Isotopes 160. DOI: https://doi.org/10.1016/j.apradiso.2020.109066</p> <p>3. Irkimbekov R.A., Vurim A.D., Bedenko S.V., Vlaskin G.N., Vityuk G.A., et al. Estimating the neutron component of radiation properties of the IVG.1M research reactor irradiated low-enriched fuel // Applied Radiation and Isotopes. – 2022. – Vol. 181. – 110094, ISSN 0969-8043. https://doi.org/10.1016/j.apradiso.2021.110094 (Scopus: 45%, Q3, CiteScore – 2,7; WoS: 50%, Q3, IF 1.787).</p> <p>4. Irkimbekov R., Vurim A., Vityuk G., Zhanbolatov O., Kozhabayev Z., Surayev A. Modeling of Dynamic Operation Modes of IVG.1M Reactor // Energies. – 2023. – Vol.16 (2). art. no. 932. https://doi.org/10.3390/en16020932 (Scopus: 65%, Q2, CiteScore – 5; WoS: 63.24%, Q3, IF 3.252)</p> <p>5. Irkimbekov R.A., Surayev A.S., Vityuk G.A., Zhanbolatov O.M., Kozhabayev Z.B., Bedenko S.V., Ghal-Eh N., Vurim A.D. Study on an open fuel cycle of IVG.1M research reactor operating with LEU-fuel // Nuclear Engineering and Technology. – 2023. – Vol.55, Issue 4. – P.1439-1447. https://doi.org/10.1016/j.net.2022.12.012. (Scopus: 72%, Q1, CiteScore – 3.7; WoS: 83.82%, Q1, IF 2.817)</p> <p>6. Sabitova R.R., Popov Yu.A., Irkimbekov R.A., Bedenko S.V., Prozorova I.V., Svetachev S.N., Medetbekov B.S. Experimental studies of power distribution in LEU-fuel of the IVG.1M reactor // Applied Radiation and Isotopes. – Vol.200, 2023. – 110942. ISSN 0969-8043 https://doi.org/10.1016/j.apradiso.2023.110942</p> <p>7. Sabitova R., Popov Yu., Irkimbekov R., Prozorova I., Derbyshev I., Nurzhanov E., Surayev A., Gnyrya V., Azimkhanov A. Results of Experiments under the Physical Start-Up Program of the IVG.1M Reactor. <i>Energies</i> 2023, 16, 6263. https://doi.org/10.3390/en16176263</p>
6	Suraev Artur Sergeevich, PhD, Associate Professor	h-index: 5, ResearcherID: GZB-1122-2022, ORCID ID: 0000-0001-5250-2852, Scopus Author ID: 56619620600	https://www.scopus.com/authid/detail.uri?authorId=56619620600 https://www.webofscience.com/wos/author/record/35091340 https://orcid.org/0000-0001-5250-2852	<p>Author of more than 15 scientific publications.</p> <p>Key scientific efforts:</p> <p>1. Irkimbekov R.A., Vurim A.D., Bedenko S.V., Surayev A.S., Vityuk G.A. Neutron background of composite low-enriched uranium fuel of the IVG.1M research reactor // Izvestiya Vysshikh Uchebnykh Zawedeniy, Yadernaya Energetika. – 2022. – Vol.1. – P.130-139. https://doi.org/10.26583/npe.2022.1.11 (Scopus – 11%, Q3, CiteScore – 0,5).</p> <p>2. Irkimbekov R.A., Azimkhanov A.S., Vityuk G.A., Surayev A.S. [et al.] Experimental data on the IVG.1M RCCS influence on the reactor downtime between start-ups // Eurasian Journal of Physics and Functional Materials. – 2022. – Vol. 6(3). – P.190-197. https://doi.org/10.32523/ejpfm.2022060304 (Scopus – 20%, Q4, CiteScore –0,5).</p> <p>3. Irkimbekov R., Vurim A., Vityuk G., Zhanbolatov O., Kozhabayev Z., Surayev A. Modeling of Dynamic Operation Modes of IVG.1M Reactor // Energies. – 2023. – Vol.16 (2). art. no. 932. https://doi.org/10.3390/en16020932 (Scopus: 65%, Q2, CiteScore – 5; WoS: 63.24%, Q3, IF 3.252)</p> <p>4. Irkimbekov R.A., Surayev A.S., Vityuk G.A., Zhanbolatov O.M., Kozhabayev Z.B., Bedenko S.V., Ghal-Eh N., Vurim A.D. Study on an open fuel cycle of IVG.1M research reactor operating with LEU-fuel // Nuclear Engineering and Technology. – 2023. – Vol.55, Issue 4. – P.1439-1447. https://doi.org/10.1016/j.net.2022.12.012. (Scopus: 72%, Q1, CiteScore – 3.7; WoS: 83.82%, Q1, IF 2.817)</p> <p>5. Sabitova R., Popov Yu., Irkimbekov R., Prozorova I., Derbyshev I., Nurzhanov E., Surayev A., Gnyrya V., Azimkhanov A. Results of Experiments under the Physical Start-Up Program of the IVG.1M Reactor. <i>Energies</i> 2023, 16, 6263. https://doi.org/10.3390/en16176263</p> <p>Patents:</p> <p>1. Patent of the Republic of Kazakhstan for Utility Model No. 3113. Device for studying the processes of steam formation and superheating / Kotov V.M., Suraev A.S., Skakov M.K.; applicant and patent holder: RSE NNC RK–No. 2017/0871.2; filed: 28.12.2017; published: 17.09.2018; Bulletin No. 35.</p>

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7	Zhanbolatov Olzhas Muratbekovich, Master's Degree	h-index: 3, ResearcherID: IWM-3726-2023, Scopus Author ID: 57445397200	https://www.scopus.com/authid/detail.uri?authorId=57445397200 https://www.webofscience.com/ws/author/record/47183298	<p>Key scientific efforts:</p> <ol style="list-style-type: none"> Zhanbolatov O.M., Vurim A.D., Surayev A.S., Irkimbekov R.A. Development of scenarios for controlling the fuel campaign of the IVG.1M reactor with leu-fuel // Journal of Physics Conf. Series 2155 (2022) 012017 doi:10.1088/1742-6596/2155/1/012017 Irkimbekov R., Vurim A., Vityuk G., Zhanbolatov O., Kozhabayev Z., Surayev A. Modeling of Dynamic Operation Modes of IVG.1M Reactor // Energies. – 2023. – Vol.16 (2). art. no. 932. https://doi.org/10.3390/en16020932 (Scopus: 65%, Q2, CiteScore – 5; WoS: 63.24%, Q3, IF 3.252) Irkimbekov R.A., Surayev A.S., Vityuk G.A., Zhanbolatov O.M., Kozhabayev Z.B., Bedenko S.V., Ghal-Eh N., Vurim A.D. Study on an open fuel cycle of IVG.1M research reactor operating with LEU-fuel // Nuclear Engineering and Technology. – 2023. – Vol.55, Issue 4. – P.1439-1447. https://doi.org/10.1016/j.net.2022.12.012. (Scopus: 72%, Q1, CiteScore – 3.7; WoS: 83.82%, Q1, IF 2.817) Zhanbolatov O.M., Irkimbekov R.A. Modeling the point kinetics of the IGR reactor considering the time distribution of released fission energy // Bulletin NNC RK. – 2019. – Issue 3 (79). – pp. 59–61. (IF = 0,164, KazBCI) https://doi.org/10.52676/1729-7885-2019-3-59-61 Zhanbolatov O.M., Irkimbekov R.A., Mukhamedov N.Ye. Calculation of the power distribution of an experimental device with a neutron converter // Bulletin NNC RK. – 2020. – Issue 4. – pp. 82–87. https://journals.nnc.kz/jour/article/view/295 Zhanbolatov O.M., Irkimbekov R.A. Justification of the technology for experimental studies of fast reactor fuel rods at the IGR // Bulletin NNC RK. – 2020 (1). – pp. 62–67. Zhanbolatov O.M., Irkimbekov R.A. Features of power calculation for elements of an experimental device for reactor tests at the IGR // Bulletin NNC RK. – 2020 (2). – pp. 55–60. <p>Patents:</p> <ol style="list-style-type: none"> Patent of the Republic of Kazakhstan for Invention No. 33207. Neutron converter for testing fast reactor fuel rods / Kotov V.M., Zhanbolatov O.M.; applicant and patent holder: RSE NNC RK – No. 2017/0494.1; filed: 09.06.2017; published: 26.10.2018; Bulletin No. 40. Patent of the Republic of Kazakhstan for Invention No. 33104. Loop channel of a research reactor / Kotov V.M., Vityuk V.A., Zhanbolatov O.M.; applicant and patent holder: RSE NNC RK – No. 2017/0015.1; filed: 06.01.2017; published: 17.09.2018; Bulletin No. 35.
8	Kabdylkakov Yerzhan Askaruly, Master's Degree	h-index: 2, ResearcherID: HCI-1696-2022, ORCID ID: 0000-0003-3541-2569, Scopus Author ID: 57212089943	https://www.scopus.com/authid/detail.uri?authorId=57212089943 https://www.webofscience.com/ws/author/record/35821914 https://orcid.org/0000-0003-3541-2569	<ol style="list-style-type: none"> Kabdylkakov Ye.A., Suraev A.S. Application of the Volume of Fluid method for modeling the melting and movement of fuel // Bulletin NNS RK. – 2021. – Issue 3 (87). – pp. 3–8. https://doi.org/10.52676/1729-7885-2021-3-3-8 Kabdylkakov Ye.A., Suraev A.S., Irkimbekov R.A. Application of the text interface of ANSYS FLUENT for modeling the thermophysical state of a typical experimental device // Bulletin NNC RK. – 2022 (3). – pp. 55–63. https://doi.org/10.52676/1729-7885-2022-3-55-63
9	Baklanova Yuliya Yuryevna, Master's Degree	h-index: 5 Web of Science ResearcherID: ELC-8930-2022, Scopus Author ID: 57204978369	https://www.scopus.com/authid/detail.uri?authorId=57204978369 https://orcid.org/0000-0002-4054-7831	<p>Author of more than 70 scientific publications and 5 patents.</p> <p>Key scientific efforts:</p> <ol style="list-style-type: none"> Baklanova Yu. Studying the decontamination process of an irradiated beryllium reflector in a chlorine environment/ PlosOne. – 2025, Q1, 89%. https://doi.org/10.1371/journal.pone.0322723 Baklanova Yu., Sapatayev Ye., Samarkhanov K. High-Temperature Corrosion Behavior of 12Cr18Ni10Ti Grade Austenitic Stainless Steel Under Chlorination Conditions // Metals. – 2025. – Vol. 15(9). – P.1052, Q2, 78%. https://doi.org/10.3390/met15091052 Syssaletin A., Batyrbekov E., Baklanova Y., Yermakov V., Nauryzbayev R., Marks N., Kips R., Tompson A., Dallas L., Stratz A. Advancing nuclear forensics competencies at the National Nuclear Center of the Republic of Kazakhstan and conceptual development of a National Nuclear Forensics Library // Springer Nature Link Journal

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				<p>of Radioanalytical and Nuclear Chemistry. – 2025. – Volume 334. – P. 8977–8987, Q3, 61%. https://doi.org/10.1007/s10967-025-10452-0</p> <p>4. Samarkhanov K.K., Baklanova Yu.Yu., Bukina O.S., Baklanov V.V., Koyanbayev Y.T., Kukushkin I.M., Bolshinsky I.M., Bateman K.J. Development of the technological process for the IGR reactor's highly-enriched irradiated uranium-graphite fuel immobilization // Journal of Nuclear Materials. – 2025. – Volume 610. – 155801, Q1, 86%. https://doi.org/10.1016/j.jnucmat.2025.155801</p> <p>5. Gnyrya V., Gordienko Yu., Surayev A., Baklanova Yu., Vityuk G.A. et al. Experimental device design justification for radiation resistance tests of single-mode optical fibers and FBG-based sensors at the IVG.1M reactor // Journal of Physics: Conference Series 2155. – 2022. – 012019. https://doi.org/10.1088/1742-6596/2155/1/012019 (Scopus – 18%, Q4, CiteScore –0,8)</p> <p>6. Vurim A., Mukhamedova N., Baklanova Yu., Syssaletin A., Akaev A. Information and Analytical System for Processing of Research Results to Justify the Safety of Atomic Energy // Appl. Sci. – 2022. – Vol. 12, 9705. https://doi.org/10.3390/app12199705</p> <p>7. Kulsartov T.V., Udartsev S.V., Samarkhanov K.K., Gordienko Y.N., Ponkratov Y.V., Baklanova Y.Y., Zaurbekova Z.A., Kaynazarova A.E., Podoinikov M.A., Kylyshkanov M.K., Tulubayev Y.Y., Bochkov V.S., Obgolts O.Y. The temperature-time dependence of the amount and type of niobium beryllides formed during the synthesis of the binary intermetallic compound NbBe3 // Intermetallics. – 2023. – Vol. 163, 108065. https://doi.org/10.1016/j.intermet.2023.108065</p> <p>8. Vurim A., Mukhamedova N., Baklanova Yu., Syssaletin A., Akayev A. Information and analytical system as a promising database used to justify the safety of nuclear energy // Nuclear Engineering and Design. – 2023. – Volume 415. – P. 112704. https://doi.org/10.1016/j.nucengdes.2023.112704</p>
10	Akaev Asan Saburovich, Higher Education	<p>h-index: 5, Web of Science ResearcherID: GXT-1991-2022, https://orcid.org/0000-0003-4792-6161, Scopus Author ID: 57311044500 Scopus Author ID: 57321455500</p>	<p>https://www.scopus.com/authid/detail.uri?authorId=57321455500</p> <p>https://www.webofscience.com/wos/author/record/34772200</p> <p>https://orcid.org/0000-0003-4792-6161</p>	<p>Author of more than 50 scientific publications.</p> <p>Key scientific efforts:</p> <p>1. Skakov M.K., Toleubekov K.O., Baklanov V.V., Gradoboev A.V., Akaev A.S., Bekmuldin M.K. The method of corium cooling in a core catcher of a light-water nuclear reactor // Eurasian Physical Technical Journal. – 2022. – Vol.19. – No.3 (41). – P.69-77. https://doi.org/10.31489/2022No3/69-77</p> <p>2. Vurim A., Mukhamedova N., Baklanova Yu., Syssaletin A., Akaev A. Information and Analytical System for Processing of Research Results to Justify the Safety of Atomic Energy // Appl. Sci. 2022, 12, 9705. https://doi.org/10.3390/app12199705</p> <p>3. Skakov M., Baklanov V., Akaev A., Kukushkin I., Bekmuldin M., Toleubekov K., Gradoboev A., Stepanova O. On the Possibility of Forming a Corium Pool by Induction Heating in a Melt Trap of the Lava-B Facility // Applied Sciences (Switzerland) Open Access. – Vol.13, Issue 4. – February 2023 Article number 2480. DOI https://doi.org/10.3390/app13042480</p> <p>Patents:</p> <p>1. Patent of the Republic of Kazakhstan for Utility Model No. 7799. Device for receiving the melt of a nuclear reactor corium prototype / Skakov M.K., Baklanov V.V., Akaev A.S., Bekmuldin M.K., Mikisha A.V., Toleubekov K.O.; applicant and patent holder: RSE NNC RK – No. 2022/0905.2; filed: 18.10.2022; published: 20.10.2023; Bulletin No. 42.</p> <p>2. Patent of the Republic of Kazakhstan for Utility Model No. 7845. Method for increasing the efficiency of a heat-resistant material for a melt trap of a light-water nuclear reactor core / Skakov M.K., Baklanov V.V., Akaev A.S., Mikisha A.V., Bekmuldin M.K.; applicant and patent holder: RSE NNC RK – No. 2023/0063.2; filed: 08.10.2021; published: 24.02.2023; Bulletin No. 8.</p>

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11	Popov Yuriy Anatolyevich, Higher Education	h-index: 4, Web of Science ResearcherID: FRJ-0810-2022, Scopus Author ID: 57194237762	https://www.scopus.com/authid/detail.uri?authorId=57194237762 https://www.scopus.com/authid/detail.uri?authorId=57194237762	<p>Author of more than 40 scientific publications.</p> <p>Key scientific efforts:</p> <ol style="list-style-type: none"> 1. Prozorova I.V., Ghal-Eh N., Bedenko S.V., Popov Yu.A., Prozorov A.A., Vega-Carrillo H.R. Characterizing the coaxial HPGe detector using Monte Carlo simulations and evolutionary algorithms // Applied Radiation and Isotopes. – Vol.174. – 2021, 109748. ISSN 0969-8043 https://doi.org/10.1016/j.apradiso.2021.109748 2. Sabitova R.R., Prozorova I.V., Irkimbekov R.A., Popov Yu.A., Bedenko S.V., Prozorov A.A., Mukhamediyev A.K. Methods to study power density distribution in the IVG.1M research reactor after conversion // Applied Radiation and Isotopes. – 2022. – № 185. – 110259 https://doi.org/10.1016/j.apradiso.2022.110259 3. Sabitova R.R., Popov Yu.A., Irkimbekov R.A., Bedenko S.V., Prozorova I.V., Svetachev S.N., Medetbekov B.S. Experimental studies of power distribution in LEU-fuel of the IVG.1M reactor // Applied Radiation and Isotopes. – Vol.200, 2023. – 110942. ISSN 0969-8043 https://doi.org/10.1016/j.apradiso.2023.110942 4. Sabitova R., Popov Yu., Irkimbekov R., Prozorova I., Derbyshev I., Nurzhanov E., Surayev A., Gnyrya V., Azimkhanov A. Results of Experiments under the Physical Start-Up Program of the IVG.1M Reactor. <i>Energies</i> 2023, 16, 6263. https://doi.org/10.3390/en16176263 5. Svetachev S.N., Popov Yu.A., Sabitova R.R., Bedenko S.V., Prozorova I.V., Medetbekov B.S. Experimental studies of fission product release from model fuel elements at the physical start-up of the IVG.1M research reactor // Applied Radiation and Isotopes. Available online 6 September 2023, 111023 https://doi.org/10.1016/j.apradiso.2023.111023
12	Akbolatov Yeldos Zhannuruly, Master's Degree	h-index: 1, Scopus Author ID: 57207935093, ORCID 0009-0000-1223-980X	https://www.scopus.com/authid/detail.uri?authorId=57207935093	<ol style="list-style-type: none"> 1. Akbolatov Ye.Zh., Korovikov A.G., Ermolaev A.A. Assessment of the installation quality of the coolant system of the IVG.1M reactor // Bulletin NNC RK. – 2019. – Issue 4 (80). – pp. 108–112. (IF = 0.164, KazBCI)
13	Samarkhanov Kuanysh Kanatuly, PhD	h-index: 11, Web of Science ResearcherID: AAM-4512-2020, https://orcid.org/0000-0003-3417-7878 , Scopus Author ID: 57202454611, SciProfiles: 2542641	https://www.scopus.com/authid/detail.uri?authorId=57202454611 https://www.webofscience.com/wos/author/record/1993532 https://orcid.org/0000-0003-3417-7878	<p>Автор более 40 научных публикаций.</p> <p>Key scientific efforts:</p> <ol style="list-style-type: none"> 1. Batyrbekov E., Khasenov M., Gordienko Yu., Samarkhanov K., Ponkratov Yu. Optical radiation from the sputtered species under gas excitation by the products of the ${}^6\text{Li}(n,\alpha){}^3\text{H}$ nuclear reaction // Journal of Luminescence. – 2020. – Vol.220. – 116973. https://doi.org/10.1016/j.jlumin.2019.116973 2. Ponkratov Yu., Batyrbekov E., Khasenov M., Samarkhanov K., Chikhray Ye. Application of high energy tritium ions and α-particles formed in ${}^6\text{Li}(n,\alpha)\text{T}$ nuclear reaction to excite the luminescence of inert gas mixtures // Fusion Sci. Technol., 2021. – Vol.77, Issue 4. – P.327-332. https://doi.org/10.1080/15361055.2021.1887714 3. Bochkov V., Ponkratov Yu., Gordienko Yu., Samarkhanov K., Tulubayev Ye., Tulenbergenov T., Sokolov I., Martynenko Ye. Development of a methodology for conducting experiments with a sample of tin-lithium eutectic at a plasma-beam installation // Materials Today: Proceedings. – 2022. – Vol.81, Part 3. – P.1198-1203. https://doi.org/10.1016/j.matpr.2022.11431 4. Batyrbekov E., Khasenov M., Gordienko Y., Samarkhanov K., KENZHINA I.E., Kotlyar A., Miller A., Tskhe V., Bochkov V. Experimental Facility to Study the Threshold Characteristics of Laser Action at the p-s-Transition of Noble Gas Atom upon Excitation by ${}^6\text{Li}(n,\alpha){}^3\text{H}$ Nuclear Reaction Products // Appl. Sci. 2022, 12, 12889. https://doi.org/10.3390/app122412889 5. Tazhibayeva I., Ponkratov Yu., Lyublinsky I., Gordienko Yu., Vertkov A., Tulubayev Ye., Samarkhanov K., Bochkov V., Kozhakhmetov Ye., Orazgaliyev N. Study of liquid tin-lithium alloy interaction with structural materials of fusion reactor at high temperatures // Nuclear Materials and Energy. – 2022. – Vol.30. – #101152. https://doi.org/10.1016/j.nme.2022.101152 6. Gnyrya V.S., Tyurin Yu.I., Kashaykin P.F., Kulsartov T.V., KENZHINA I.E., Zaurbekova Zh.A., Samarkhanov K.K., Gordienko Yu.N., Ponkratov Yu.V., Askerbekov S.K., Tolenova A.U., Shaimerdenov A.A. A technique for conducting of reactor in-situ tests of optical fibres and FBG-sensors intended for invessel applications in thermonuclear facilities // Fusion Engineering and Design 191 (2023) 113787

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				<p>https://doi.org/10.1016/j.fusengdes.2023.113787</p> <p>7. Khasenov M, Samarkhanov K, Batyrbekov E, Gordienko Y, Kenzhina I.E, Tulubayev Y. Optical Radiation during Sputtering of Lithium into a Noble Gas Using a Nanosecond Electron Beam // Applied Sciences. – 2023; 13(6):3669. https://doi.org/10.3390/app13063669</p> <p>8. Batyrbekov E., Khasenov M., Skakov M., Gordienko Yu., Samarkhanov K., Kotlyar A., Miller A., Bochkov V. High-Energy Tritium Ion and α-Particle Release from the Near-Surface Layer of Lithium During Neutron Irradiation in the Nuclear Reactor Core // Fusion Science and Technology. – 2023. https://doi.org/10.1080/15361055.2023.2229682</p> <p>9. Kulsartov T.V., Udartsev S.V., Samarkhanov K.K., Gordienko Y.N., Ponkratov Y.V., Baklanova Y.Y., Zaurbekova Z.A., Kaynazarova A.E., Podoinikov M.A., Kilyshkanov M.K., Tulubayev Y.Y., Bochkov V.S., Obgolts O.Y. The temperature-time dependence of the amount and type of niobium beryllides formed during the synthesis of the binary intermetallic compound NbBe₃ // Intermetallics. – Vol. 163, 2023, 108065. https://doi.org/10.1016/j.intermet.2023.108065</p> <p>Patents:</p> <p>1. Patent of the Republic of Kazakhstan for Utility Model No. 8093. Method for producing research samples of tin-lithium alloy of various compositions / Ponkratov Yu.V., Tajibaeva I.L., Gordienko Yu.N., Tulubaev E.Yu., Bochkov V.S., Samarkhanov K.K.; applicant and patent holder: RSE NNC RK – No. 2022/0774.2; filed: 13.09.2022; published: 15.09.2023; Bulletin No. 37.</p> <p>2. Patent of the Republic of Kazakhstan for Utility Model No. 7162. Irradiation device for conducting experiments on a pulse graphite reactor / Gordienko Yu.N., Batyrbekov E.G., Samarkhanov K.K., Ponkratov Yu.V., Khasenov M.U., Tulubaev E.Yu., Bochkov V.S.; applicant and patent holder: RSE NNC RK – No. 2021/1143.2; filed: 22.12.2021; published: 03.06.2022; Bulletin No. 22.</p> <p>3. Patent of the Republic of Kazakhstan for Utility Model No. 6918. Ampoule device for producing samples of tin-lithium alloy / Ponkratov Yu.V., Tajibaeva I.L., Gordienko Yu.N., Bochkov V.S., Tulubaev E.Yu., Karambaeva I.S., Samarkhanov K.K.; applicant and patent holder: RSE NNC RK – No. 2021/0911.2; filed: 27.09.2021; published: 04.03.2022; Bulletin No. 9.</p> <p>4. Patent of the Republic of Kazakhstan for Utility Model No. 3115. Neutron flux detector for a nuclear reactor / Gordienko Yu.N., Batyrbekov E.G., Barsukov N.I., Zaurbekova Zh.A., Kulsartov T.V., Ponkratov Yu.V., Samarkhanov K.K.; applicant and patent holder: RSE NNC RK – No. 2017/0836.2; filed: 20.12.2017; published: 17.09.2018; Bulletin No. 35.</p>