CHUBIEVA ELENA SERGEEVNA

PERSONAL INFOMATION

E-mail: echubieva07@mail.ru

EDUCATION

2019-2023
Petrozavodsk State University, Physics and Technology Institute,
bachelor of Technical physics (diploma with honors).

PROFESSIONAL EXPERIENCE

2022-2023 present
Petrozavodsk State University, Physics and Technology Institute,
Physics of Nanostructured Oxide Films and Coatings Research Laboratory
Engineer

RESEARCH EXPERIENCE

Formation of oxide coatings on Nb by electrochemical anodizing and plasma-electrolytic oxidation methods; investigation of the kinetics of coating growth, morphology, elemental composition, atomic structure, electrophysical and optical properties.

RESEARCH INTERESTS

Preparation and investigation of the structure and properties of micronostructured oxide coatings on polycrystalline and monocrystalline niobium substrates.

PUBLICATIONS

1. Anodic oxide coatings with a hierarchical micronanostructure on sintered titanium powders [Text] / N.M. Yakovleva, E.S. Chubieva, A.N. Kokatev, I.V. Lukiyanchuk, A.M. Shulga, K.V. Stepanova// Condensed Matter and Interphases. - Voronezh : VSU Publishing House, 2022. - vol.24, No.4. - P.572-583. - URL: https://journals.vsu.ru/kcmf .

2.Plasma electrolytic oxidation of niobium in borate and tungstate electrolytes / E. S. Chubieva [et al.] // Proceedings of the Kola Scientific Center of the Russian Academy of Sciences. Series: Technical Sciences. 2023. vol. 14, No. 2. pp. 254-258. doi:10.37614/2949-1215.2023.14.2.048.(ISSN 2949-1215)

3.Micronostructured anode oxide films on compact niobium / Chubieva E. S., Yakovleva N.M., Stepanova K.V. // Research work of students and young scientists : materials of the 75th anniversary All-Russian (with international participation) scientific conference of students and young scientists: scientific electronic edition. — Petrozavodsk : PetrSU Publishing House, 2023, pp.464-468 (ISBN 978-5-8021-4117-5), (https://conf.petrsu.ru/index.php)

4.Micro/nanostructured anode-oxide coatings on niobium single crystals / Chubieva E. S., Yakovleva N.M., Stepanova K.V., Kokatev A.N. // Proceedings of the Kola Scientific Center of the Russian Academy of Sciences. Series: Technical Sciences. 2022. Vol. 13, No. 1. pp. 271-277. (doi:10.37614/2949-1215.2022.13.1.047)

5.PEO-synthesis of multilayer gradient coatings on niobium [Text] / E.S. Chubieva, M.S. Vasilyeva, V.G. Kuryavy, I.V. Lukiyanchuk, N.M. Yakovleva // XX Youth Scientific Conference of the IHS RAS dedicated to the 135th anniversary of the birth of Academician I.V. Grebenshchikov (1887-1953): Abstracts of the conference reports. - St. Petersburg: LEMA, 2022. - pp.125-127. (ISBN 978-5-00105-764-2), (http://youngiscras.ru/youngiscras/Files/Sbornik_XX_MNK_IKhS_RAN.pdf)

6.Hybrid nanocomposite coatings with an ordered alumina matrix [Electronic resource] / N.M. Yakovleva, K.I. Oskin, K.V. Stepanova, A.N. Kokatev, E.S. Chubieva // Promising technologies and materials: Materials of the International Scientific and Practical Conference, Sevastopol, September 21-23, 2022. – Sevastopol: Sevastopol State University, 2022. - pp.147-150. (ISBN 978-5-6048340-8-4) - Access mode: https://old.sevsu.ru/nauka/item/15049-ptam-2022 .

7.Micronostructured oxide coatings on compact and powdered niobium [Text] / A.N. Kokatev, K.V. Stepanova, E.S. Chubieva, A.M. Shulga, N.M. Yakovleva // Powder metallurgy: surface engineering, new powder composite materials. Welding = Powder metallurgy : Surface Engineering, New Powder Composite materials. Welding : Sat. dokl. 13th International. simp. (Minsk, 5-7 Apr. 2023). At 2 h. h. 2 / Nats. Academy of Sciences of Belarus [et al.] ; editor: A. F. Ilyushenko (Chief editor) [and others]. - Minsk : Belarusskaya Navuka, 2023. - pp.325-332.

8.The influence of the structural state of niobium on the formation of crystalline microconus anode-oxide coatings [Text] / A.N. Kokatev, N.A. Malyshev, K.V. Stepanova, E.S. Chubieva, A.M. Shulga, N.M. Yakovleva // New materials and technologies: powder metallurgy, composite materials, protective coatings, welding : materials of the 15th International Scientific and Technical conf. (Minsk, September 14-16, 2022) / National Academy of Sciences of Belarus [et al.] ; editor: A.F. Ilyushenko (editor-in-chief) [and others]. . - Minsk : Belorusskaya Navuka, 2022. - pp.630-636.

9.Nanostructured anode-oxide films on sintered niobium and titanium powders [Electronic resource] / A.N. Kokatev, K.V. Stepanova, E.S. Chubieva, A.M. Shulga, N.M. Yakovleva // Abstracts of reports. "Modern methods in theoretical and experimental electrochemistry", XIII Ples International Scientific Conference, Ples, Ivanovo region, 05-09 September 2022 . - Ivanovo: Institute of Chemistry of Solutions named after G.A. Krestov RAS, 2022. - p.112. - Access mode: http://elchem.isc-ras.ru /.

10.Obtaining microstructures ©-Nb2O5 by anodizing compact niobium [Electronic resource] / A.N. Kokatev, K.V. Stepanova, E.S. Chubieva, A.M. Shulga, N.M. Yakovleva // Abstracts of reports. "Modern methods in theoretical and experimental electrochemistry", XIII Ples International Scientific Conference, Ples, Ivanovo region, 05-09 September 2022 . - Ivanovo: Institute of Chemistry of Solutions named after G.A. Krestov RAS, 2022. - p.100. - Access mode: http://elchem.isc-ras.ru /.

PERSONAL SKILLS

Languages: Native Russian. English: Intermediate Listener, Intermediate Speaker.

Experimental Techniques: experience in studying the structure and properties of materials by atomic force microscopy, scanning electron microscopy, diffuse reflection spectrophotometry, X-ray diffraction, electrochemical impedance spectroscopy.

Oral and Poster Scientific Reports at the conferences

1. X Youth Scientific Conference of the Institute of Silicate Chemistry of the Russian Academy of Sciences (IHS RAS), dedicated to the 135th anniversary of the birth of Academician I.V. Grebenshchikov (Russian Federation, St. Petersburg? 2022). Oral report "PEO-synthesis of multilayer gradient coatings on niobium".

2. XIV All-Russian Scientific and Technical Conference of young scientists, specialists, and university students "Scientific and practical problems in the field of chemistry and chemical technologies" dedicated to the 65th anniversary of the IHTRAMS of the KNC RAS (Russian Federation, Murmansk region, Apatity? 2022). Oral report “Micro/nanostructured anode-oxide coatings on niobium single crystals".

3. International Scientific and Practical Conference "ADVANCED TECHNOLOGIES AND MATERIALS" (Russian Federation, Sevastopol, 2022). Poster presentation "Hybrid nanocomposite coatings with an ordered aluminum oxide matrix".

4. IV All-Russian Conference (with international participation) "Research and development in the field of chemistry and technology of functional materials" April 17 - 21, 2023, Apatity, Russia. Oral report "PLASMA ELECTROLYTIC OXIDATION OF NIOBIUM IN BORATE AND TUNGSTATE ELECTROLYTES" .
5. The 75th All-Russian (with international participation) Scientific Conference of students and young scientists of PetrSU, 2023, section "Nanostructured oxide films and coatings", report Micronostructured anode oxide films on compact niobium".
6. The 74th All-Russian (with international participation) Scientific Conference of PetrSU, 2022: section "Nanostructured oxide films", report "Obtaining nanostructured anode oxide films on niobium single crystals"
7. International Scientific Conference of students, postgraduates and young scientists "Lomonosov"-2023, section "Functional materials and nanomaterials II (senior students)", poster presentation "The width of the forbidden zone of PEO coatings on niobium formed in borate and tungstate electrolytes" .

Scientific schools and Whorkshops

1.Participant of the summer scientific intensive school "Physics and Technology of Accelerators" on July 3-8, 2023 on the basis of Joint Institute for Nuclear Research (Dubna) and Tomsk Polytechnic University (Tomsk).
2.Participant of the workshop of the scientific society "Nanostructured oxide films", 2022-2023, organized at the Research Lab "Physics of Nanostructured Oxide Films and Coatings ", PetrSU (Petrozavodsk).

AWARDS

Scholarships:

1. Scholarship of the President of the Russian Federation in 2022/2023 By Order of the Rector of Petrozavodsk State University No. 488 dated 03.06.2022 "On the appointment of a scholarship of the President of the Russian Federation for students studying in priority areas of training" in accordance with the order of the Ministry of Science and Higher Education of the Russian Federation dated 14.03.2022 No. 210, scholarships of the President of the Russian Federation from September 01, 2022 for the 2022/2023 academic year were assigned to the following students of PetrSU: Chubieva Elena Sergeevna, who is studying in the 4th year in the bachelor's degree program 16.03.01 Technical Physics, Institute of Physics and Technology. Source: https://petrsu.ru/page/students/stipend/fellows/stipendiaty-petrgu-imennyh#t20c

2. Scholarship for scientific achievements Increased state academic scholarship (for special achievements in educational, research, social, cultural, creative and sports activities) at PetrSU. Enrollment for a scholarship For achievements in academic activities (Pr. 1663) from 01.02.2023 to 31.05.2023. (Number 166)

Winner/prize-winner of scientific conferences:

1. Prize-winning place at the International Scientific Conference of students, postgraduates and young Scientists "Lomonosov"-2023, section "Functional materials and nanomaterials II (senior students)", poster report "The width of the forbidden zone of PEO coatings on niobium formed in borate and tungstate electrolytes" (https://lomonosov-msu.ru/rus/event/8000/page/3408 ?ysclid=lgowr2qoft429289767).

2. 1-st place at the 75th All-Russian (with international participation) Scientific Conference of students and young scientists of PetrSU section "nanostructured oxide films and coatings", report Micronostructured anode oxide films on compact niobium (https://conf.petrsu.ru/papers.php?section_id=3401&con).

3. Diploma of the 3rd degree at the 74th All-Russian (with international participation) Scientific conference of PetrSU: section "Nanostructured oxide films", report "Obtaining nanostructured anode oxide films on niobium single crystals" (Link to the news from the PetrSU website: https://petrsu.ru/news/2022/106500/74ya-vserossiiskaya - Link to the conference website: ahttps://conf.petrsu.ru/papers.php?section_id=1166&conf_id=201).

Contests:

Winner of the PetrSU Student of the Year 2022 competition (httos://vk.com/nvbal.petrsu)

GRANTS

2022 -2023

Grant of the Head of the Republic of Karelia - 2022 (research work within the framework of the program to support applied research and development of students and postgraduates of the Petrozavodsk State University, providing a significant contribution to the innovative development of economic and social sectors of the Republic of Karelia for the period 2022-2023"). Project: Functional nanocomposite anode coatings on compact and powder metals and alloys. Contract No. 4-G21 dated 12/27/2021, Agreement No. KGRK - 21/N2-05 dated 30.03.2022, the Contractor.