CURRICULUM VITAE

Professor, Valentina A. Verkhozina Date of Birth: February January 21, 1951

Nationality: Russia (resident)

Language: Russian (native), English (Basic)

01/09/2018 - Professor, Department of Mineral Processing and Environmental Engineering, Institute of Subsoil Use (Irkutsk National Research Technical University).

1/09/2017-31/08/2018 - Professor, Department of Industrial Ecology and Life Safety, (Irkutsk National Research Technical University).

1/09/2015- Irkutsk National Research Technical University).

31/08/2017 Professor at the Department of Industrial Enterprise Management. Irkutsk National Research Technical University).

10/07/-1992- 12/05/2015 - Lead researcher at the Department of Physics and Chemical Modeling of Institute of Geochemity Institute of the Academy of Sciences

31/03/1988 - 10/07/-1992- Lead researcher at the Physical Limnology Laboratory of the Limnological Institute of the Academy of Sciences

31/03/1984- 31/03/1988- Researcher at the Physical Limnology Laboratory of the Limnological Institute of the Academy of Sciences

 $1/09/1974\hbox{-}\ 31/03/1984\hbox{-}\ Junior\ Researcher\ in\ Laboratory\ Microbiology\ of\ the\ Limnological\ Institute\ of\ the\ Academy\ of\ Sciences$

1/09/1969-31/08/1974- Student of the Faculty of Biology of Irkutsk State University

Scientific work was combined with teaching at IRNITU

01/09/2003- 31/08/2017 Professor at the Department of Industrial Enterprise Management. Irkutsk National Research Technical University).

Education

11/06/1974- Graduated from the Department of Microbiology of the Faculty of Biology of Irkutsk State University. Biologist, Biology and Chemistry Teacher

10/05/1984- Ph.D. Associate Professor Biology,

23/05/2003-, Doctor of Engineering.

21/10/2009, Professor in the Department of Engineering Ecology.

Field of activity

Develop and manage research of ecosystems of the deep reef lakes. The impact of the anthropogenic factor on the water quality of Lake Baikal. Develop modern methods of water quality research. Environmental Risk Management of the Pribaikal region. Also, the development of resource-saving technologies in the processing of sulphide gold ore by biotechnology method.

Completed Research Projects:

In the period 2005-2008, Work Manager.

- 1. Biogeochemical processes of the quality of fresh water of the world's largest rift lakes (example of Lakes Baikal and Nyasa) 2005-2008 (project RFFI № 05-05-64749)
- 2. The geochemical functions of microorganisms, their role in the water quality formation of the world's largest rift lakes: Baikal and Nyasa and the rational use of these lakes (RFFI Baikal N 05-05-97268), 2005-2008

Teaching Experience:

Lectures: Ecology (2003-2017), Environmental management (2003-2017), Nature Management (2003-2010), Industrial Technologies (2010-2017), Industrial production systems and equipment (2010-2017), Basics environmental management (2003-2017), Best available technologies (green technologies) (2017-2018), Technosphere ecology (2017-2018), Nanotechnology in Technology and Risks (2017-2018), Ecology, Natural resources (2017-2018).

Head of Scientific Thesis:

- 1. Tatiana Kuzmina. The impact of hydrodynamic processes in the Lake Baikal ecosystem of the water quality. Ph.G. (25.00.36). Geoecology 2004, Irkutsk
- 2. Gennadyi Shadov. Ecologo-economic modeling of the choice of water-protection environmental measures to protect water facilities in the liquidation of open coal mining plants/ Ph.G (08.00.05) Economy and management of the national economy. 2005. Moscow
- 3. Serhiy Zakharov. Assessment of working conditions for the development of approaches to the management of labor protection on railway transport (in the example of the East Siberian Railway Ph.G) (5.26.01). Labor protection, 2007.Vladivostok.
- 4. Lyudmila Shktova. A study of biotechnological processing of sulphide gold-containing ore /Ph.G (05.16.02) Metalurgy of black, non-ferrous and rare metals. 2013 Irkutsk.

Additional education:

"First Aid Receptions, 2018, MH of Irkutsk Region GBUS IOCMC "Training Center for First Aid Techniques Training"; January 22, 2018 (identity number 4630);

E-learning IRNITU by section: The pedagogical and psychological aspects of the organization of inclusive vocational education for people with disabilities and disabilities (2018);

Organizing the educational process for a major professional program using the electronic information and education environment (EIOS) (2018).

Service / Memberships:

Academy of Sciences: Member-correspondent of the Academy of Water Sciences, on the department "Cadastre, monitoring and protection of water resources (2003).

Dissertation Advice:

Member of the Dissertation Council on the specialty "Biotechnology" VSGUTU, Ulan-Ude (2004-2015). Member of the Dissertation Council on the specialty "Geoecology (in the mining and processing industry, Geotechnology (underground, open and construction) (Irkutsk), (2010-2020).

Awards: Labor Veteran (1998); Distinguished Veteran of the Siberian Branch of the Russian Academy of Sciences (2003), The silver sigma badge for its many years of creative work and great contribution to the development of science (2007).

Publications: 250 scientific publications, including 11 inventor's certificates, patents and know-how, 5 monographs, 12 manuals, over 100 scientific articles, for example:

- 1. Verkhozina V. A., Verkhozina E. V. and Verkhoturov V. V. Evaluation of results of changes in bacterial strains in ecosystem of lake Baikal //IOP Conference Series: Materials Science and Engineering. International Conference on Construction, Architecture and Technosphere Safety 25–27 September 2019. Chelyabinsk. The Russian Federation. Volume 687, 2019
- 2. Verkhozina E. V., Safarov A. S., Verkhozina V. A., Bukin U. S. The Use of Mathematical Methods in Analysis of Antibioticresistans of Microorganisms of Lake Baikal // Information Technologies in the Research of Biodiversity Proceedings of the International Conference "Information Technologies in the Research of Biodiversity", 11–14 September, 2018, Irkutsk, Russia. Springer Proceedings in Earth and Environmental Sciences. 2019. p. 66-72.
- 3. .Valentina A. Verkhozina, Elena V. Verkhozina, Ludmila E.Shketova, Svetlana S. Timofeeva. A study of biotechnological processing of sulphide gold-containing ores // Izvestia universities. Applied chemistry and biotechnology. 2019. No 1. C. 109-119.
- 4. Verkhozina E.V., Verhozina V.A., Verkhoturov V.V. Eco-biotechnological research of the lake Baikal ecosystem: monograph. Irkutsk. IRNITU. 2019. 160 s.
- 5. Verkhozina V.A., Verkhozina E.V., Verkhoturov V.V., Bukin S.S., Safarov A.S. Analysis of the microbial community in the littoral zone of the southern part of the Lake Baikal ecosystem / Water and ecology: problems and solutions. 2017. No 3. P. 99-113.
- 6. Verkhozina V.A., Golovnykh N.V., Safarov A.S., Chudnenko K.V., Shadov I.M. Development of information technology method in resource-saving technologies of aluminum production / Metallurg. 2016, N 4. P.17-25

- 7. .Verkhozina V.A., Verkhozina E.V., Safarov A.S., Makukhin V.L. Simulation of the transfer of solid-weight emissions by thermal power plants to the central ecological zone of the Baikal Natural Territory Water: Chemistry and Ecology 2017. No 11-12. P. 20-27.
- 8. Verhozina E.V., Safarov A.S., Makukhin V.L., Verhozina VA Impact of New-Irkutsk TEC emissions on air pollution in Irkutsk // Geoecology, 2016, No. 1. p. 50-55.
- 9. Verkhozina V.A., G.I. Shadov Ecologo-economic modeling of the choice of water-protection environmental measures to protect water facilities in the liquidation of open coal mining plants / IVUZ. Gornyi zhurnal. 2010 No 8. p.83-86
- 10. Verkhozina V.A., Golovnykh N.V. Physics and Chemical Modeling of Environmentally Safe Technologies in the Production of Alumina and Aluminum // IVUZ. Gornyi zhurnal. 2011, No.1, p.70-76.
- 11. Fu, S.-S., Li, P.- J., Feng, Q., Jia, H-Y., X.-J. Verkhozina V.A. Research advances in soil magnesium pollution of magnesite mining area and related mechanisms // Journal of Ecology, 2009, 28 (3),pp. 549-555.
- 12. Verkhozina V.A., Verkhozina E.V., Pisarsky B.I. Geoecological assessment of the impact of the anthropogenic factor on the ecosystems of the world's rift lakes (example of Baikal and Nyasa) //Problems of regional ecology. 2010. N. 2. p. 9-13
- 13. Niu, M., Ma. E., Li, P., Fu, S, Verkhozina V.A. Effects of excesseive Mg ⁺² on the soil enzyme activity Shenyang Jianzhu Daxue Xuebao (Ziran Kexue Ban) //Journal of Shenyang Jianzhu University (Natural Scence), 2009, 25 (3), pp. 552-555.
- 14. Ren Wan-Xia, Li Pei-Jun, Zheng Le, Fan Shu-Xiu, Valentina A. Verkhozina. Effects of dissolved low molecular weight organic acids on oxidation of ferrous iron by Acidithiobacillus ferrooxidans //Journal of Hazardous Materials, 2009, V. 162, № 1, p. 17-22
- 15. He N., Li P.J., Zhou Y.C., Ren W.X., Fan S.X., Valentina A. Verkhozina. Catalytic dechlorination of polychlorinated biphenyls in soil by palladium-iron bimetallic catalyst // Journal of Hazardous Materials, 2009, V. 164, № 1, P. 126-132.