

Georgian National Academy of Sciences



Personal Data (CV)

Surname	Khatisashvili	First Name	Gia
Address (work, home)	Work: Kakha Bendukidze Campus, 240 David Aghmashenebeli Alley, Tbilisi, 0159, Georgia Home: Didi Dighomi,3 rd microdistr., b. 15, ap. 222, Tbilisi, 0159, Georgia	Date and place of birth	18.01.1963 Mtskheta, Georgia
Citizenship	Goergia g khatisashvili@agrupi.edu.ge	Telephone number(s)	+995599145298 (mob.) +995322539049 (home)
	g_khatisashvili@gmail.com g_khatisashvili@yahoo.com		

3. Education

Education	Institution	Learning Time
Secondary	Mtskheta Secondary School	1969-1979
Higher	Tbilisi State University, Faculty of	1979-1984
	Chemistry	
Postgraduate study, doctoral candidacy		

4. Knowledge of Languages

Foreign languages	Level of language proficiency (fluent, intermediate, beginning with the help of a dictionary)
Russian	Fluent
English	with the help of a dictionary
French	with the help of a dictionary

5. Scientific or Academic Degree and Rank

	Title of the thesis	Date of conferment	Degree
Ph.D. thesis	The monooxygenase system of plant microsomal membranes	12.04.1991	Candidate of
			Biological
			Sciences

Doctoral thesis	Plant monooxygenases: detoxification of xenobiotics and	19.11.1999	Doctor of
	intracellular energetics		Biological
			Sciences
Academician Doctor			
Professor	Xenobiochemistry	2020	
Corresponding Member of	Department of Biological Sciences	11.12.2024	
the			
Academy			
Member of the Academy			

6. Work Experience

Date	Institution	Position
	Durmishidze Institute of Biochemistry and	Head of Laboratory of Biological Oxidation
From 2009	Biotechnology of Agricultural University of	
	Georgia	
	Durmishidze Institute of Biochemistry and	Chief Scientist
2006-2009	Biotechnology of the Georgian National Academy	
	of Sciences	
	Durmishidze Institute of Biochemistry and	Principal Scientist
2000-2006	Biotechnology of the Georgian National Academy	
	of Sciences	
	Durmishidze Institute of Biochemistry and	Senior Research Scientist
1993-2000	Biotechnology of the Georgian National Academy	
	of Sciences	
1080-1003	Institute of Plant Biochemistry of the Georgian	Research Scientist
1707-1775	National Academy of Sciences	
1984-1989	Institute of Plant Biochemistry of the Georgian	Laboratory Assistant
	National Academy of Sciences	
From 2011	National Assessment and Examinations Center of	Head of Chemistry Group
	Georgia (NAEC)	
2006-2011	National Assessment and Examinations Center of	Consulting Chemistry Expert for Science Group
	Georgia (NAEC)	

6.1 Teaching Activity

Date	Institution	Position
From 2020	Agricultural University of Georgia	Full Professor
2017-2020	Agricultural University of Georgia	Assistant Professor
2011-2017	Agricultural University of Georgia	Associate Professor

6.2 Work Abroad

Form of activity	Date	Place and Institution
Delivering a course of lectures at		
foreign higher education		
institutions		
Long-term academic mission to		
research institutions		
Other		

7. Sphere of Scientific Interests

Xenobiochemistry
Ecological chemistry
Study of mechanisms of detoxification of xenobiotics in plant cells

8. Publications (Total number, indicating the Citation Index (*number*))

Total number - 130, Citation Index - 1356, h-index - 16 (according to Google scholar)

8.1 Monographs

Years	
2023	Kvesitadze E., Gakhokidze R., Khatisashvili G., Kvesitadze G. Ecological and Food Potential of the Earth. Tbilisi,
	Favorite, 2023, 215 pages. (Monograph, in Georgian)
2022	Khatisashvili G., Varazi T., Kurashvili M., Pruidze M., Bunin E., Didebulidze K, Butkhuzi T., Bakradze E.,
	Asatiani N., Kartvelishvili T., Sapojnikova N. Remedial Approaches against Arsenic Pollution. In: Arsenic
	Monitoring, Removal and Remediation (Edited by Margarita Stoytcheva and Roumen Zlatev), IntechOpen, DOI:
	10.5772/intechopen.98779. Available from: <u>https://www.intechopen.com/online-first/remedial-approaches-against-</u>
	arsenic-pollution 2022, pp. 59-77 (Chapter in book)
2021	Sadunishvili I.A., Khatisashvili G.A., Gurova O.S., Samarskaya N.S. Innovative Methodologies for Environmental
	DSTL 2021 145 pages (Monograph in Proteins)
2015	Kyasitadze G. Khatisashvili G. Sadunishvili T. Kyasitadze F. Plants for remediation: untake translocation and
2015	transformation of organic pollutants. In: Plants Pollutants and Remediation. Eds: Öztürk M. Ashraf M. Aksov A
	Ahmad M.S.A., Hakeem K.R. Springer, Dordrecht, Heidelberg, New York, London, 2015, pp. 241-308 (Chapter in
	book)
2014	Khatisashvili G., Gakhokidze R., Matchavariani L. Improving of Phytoremediation of Soil Polluted with Oil
	Hydrocarbons in Georgia. In: Soil Remediation and Plants. Eds: Hakeem K., Sabir M., Ozturk M., Murmet A.
	Elsevier, Academic Press, 2014, pp. 547-569 (Chapter in book)
2014	Kvesitadze G., Khatisashvili G., Sadunishvili T. Metabolism of ¹⁴ C-Containing Contaminants in Plants and
	Microorganisms. In: Radionuclide Contamination and Remediation Through Plants. Eds: Gupta D.K., Walther C.
	Springer, Dordrecht, Heidelberg, New York, London, 2014, pp. 253–276 (Chapter in book)
2013	Gordeziani M., Khatisashvili G. Enzymes. Conformation changes of hemoproteins, chemical modification and
	modeling. Tbilisi, Mtsignobari, 2013, 215 pages. (Monograph, in Georgian)
2011	Gordeziani M., Khatisashvili G., Varazi T., Kurashvili M., Pruidze M. Xenobiochemistry with bases of
	ecological chemistry. Tbilisi, Stambacomi, 2011, 322 83. (Monograph, in Georgian)
2009	Khatisashvili G., Gordeziani M., Varazi T., Kurashvili M., Pruidze M. Oxigenases of Biomembranes
	(Physiology and Biochemistry). Tbilisi, Saqmatsne Publishers, 2009, 338 pages. (Monograph, in Georgian)
2008	Gordeziani M., Khatisashvili G. Chemical modification of cytochrome P450. Tbilisi, Agrarikosi, 2008, 37 83.
	(Monograph, in Georgian)
2006	Kvesitadze G., Khatisashvili G., Sadunishvili T., Ramsden J.J. Biochemical Mechanisms of Detoxification: Basis
	of Phytoremediation. Berlin, Heidelberg, Springer, 2006, 262 p. (Monograph)
2005	Gordeziani M., Khatisashvili G. Membrane xenobiochemistry. Tbilisi, Agrarikosi, 2005, 281 pages. (Monograph,
	in Georgian)
2005	Kvesitadze G., Khatisashvili G., Sadunishvili T., Evsigneeva Z.G. Metabolism of anthropogenic toxicants in higher
	plants. Moscow, Nauka, 2005, 200 pages. (Monograph, in Russian)
2005	Papunidze V., Khatisashvili G., Sadunishvili T. Plants for healthy planet. Batumi, Adjara, 2005, 229 pages.
	(Monograph, in Georgian)
2004	Gordeziani M., Khatisashvili G., Kirtadze E. Bioenergetic and Regulation of Oxidative Processes. Tbilisi,
	Stambacomi, 2004, 248 pages. (Monograph, in Georgian)

8.2 Principal Papers (no more than 50)

Years	
2024	Tabagari I., Varazi T., Dumbadze N. Kurashvili M., Pruidze M., Khatisashvili G., Karpenko O., Koretska N.
	Biological two-stage treatment technology for mitigating mining-related heavy metal pollution in Georgian
	rivers. Discover Water 2024, 4, 87. <u>https://doi.org/10.1007/s43832-024-00128-3</u>
2023	Elizbarashvili E., Khatisashvili G., Butkhuzi T., Khatisashvili T., Ezugbaya L., Bukia M., Ramishvili Ts. English-
	Georgian and Georgian-English explanatory online dictionary of chemistry terminology. International Journal of
	Multilingual Education, 2023, 22, 121-134
	https://multilingualeducation.openjournals.ge/index.php/ijml/article/view/7690/7631

2023	Kvesitadze G., Khatisashvili G. Biotechnology for cleaning up soils from explosives. Science and Science of
	Science. 2023, 1 (119): 47-56 https://doi.org/10.15407/sofs2023.01.047
2022	Tabagari, I., Varazi, T., Chokheli, L. Kurashvili M., Pruidze M., Khatisashvili G., Karpenko O., Lubenets V., von
	Fragstein und Niemsdorff. Enhancement of Spirulina platensis Remediation Action Using Biosurfactants for
	Wastewater Treatment. International Journal of Environmental Research, Springer, 2022, 16, 14
	https://doi.org/10.1007/s41742-022-00392-y
2021	Asatiani N., Bakradze E., Butkhuzi T., Didebulidze K., Gujabidze A., Kartvelishvili T., Khatisashvili G.,
	Khmiadashvili S., Kurashvili M., Pruidze M., Razmadze D., Sapojnikova N., Varazi T. Microorganisms and Plants
	as 1001s for Phytoremediation of Soft Polluted with Different Forms of Arsenic. Journal of Agrarian Sciences, 2021, 10 (4), 360, 363
2021	Acatiani N Abuladze M Kartvelichvili T Osenashvili M Shengelaya A Daraselia D Janaridze D
2021	Khatisashvili G., Varazi T. Holman HY., Sapoinikova N. Copper (II) Ion Action on Soil Bacteria. Water Air Soil
	Pollut 2021, 232, 355 https://doi.org/10.1007/s11270-021-05317-7
2020	Tabagari I., Chokheli L., Adamia G., Kurashvili M., Varazi T., Pruidze M., Khatisashvili G., P. v Ragstein und
	Niemsdorff. The Effectiveness of Arthrospira platensis for the Purification of Copper-Contaminated Water. Water
	Air Soil Pollut, 2020, 231, 470 https://doi.org/10.1007/s11270-020-04841-2
2020	Bunin E., Khatisashvili G., Varazi T., Kartvelishvili T., Asatiani N., Sapojnikova N. Study of Arsenic-
	Contaminated Soil Bacterial Community Using Biochip Technology. Water Air Soil Pollut, 2020, 231, 198
	https://doi.org/10.1007/s11270-020-04575-1
2019	Tabagari I., Kurashvili M., Varazi T., Adamia G., Gigolashvili G., Pruidze M., Chokheli L., Khatisashvili G., P. v
	Ragstein und Niemsdorff. Application of Arthrospira (Spirulina) platensis against chemical pollution of water.
2010	Kurashvili M Adamia G Varazi T Khatisashvili G Gigolashvili G Pruidze M Chokheli I Janharashvili S
2019	Application of Blue-green Alga Spirulina for removing Caesium ions from polluted water. Annals of Agrarian
	Science, 2019, 17, 2, 153-157
2019	Adamia G., Gordeziani M., Karpenko E., Karpenko O., Khatisashvili G., Kurashvili M., Pruidze M., Varazi T.
	Improving of Copper (II)-Ions phytoextraction by Using Glycolipid Biosurfactants. Annals of Agrarian Science,
	2019, 17, 1, 9-15
2018	Adamia G., Chogovadze M., Chokheli L., Gigolashvili G., Gordeziani M., Khatisashvili G., Kurashvili M., Pruidze
	M., Varazi T. About possibility of alga Spirulina application for phytoremediation of water polluted with 2,4,6-
	trinitrotoluene. Annals of Agrarian Science, 2018, 16, 3, 348-351
2018	Kurashvili M., Varazi I., Khatisashvili G., Gigolashvili G., Adamia G., Pruidze M., Gordeziani M., Chokheli L.,
	Trichloroethane_1 1_divl)bis(4_chlorobenzene) (DDT) Annals of Agrarian Science, 2018, 16, 4, 405,409
2018	Kvesitadze G. Meskhi B.Ch. Khatisashvili G. Three stage biotechnology for the rehabilitation of soils polluted
2010	with explosives. Science Almanac of Black Sea Region Countries, 2018, 13(1), 53-67
2016	Kurashvili M., Adamia G., Amiranashvili L., Ananiashvili T., Pruidze M., Varazi T., Gordeziani M., Khatisashvili
	G. Targeting of detoxification potential of microorganisms and plants for cleaning environment polluted by
	organochlorine pesticides. Annals of Agrarian Science, 2016, 14, 3, 222-226
2016	Kurashvili M., Varazi T., Pruidze M., Adamia G., Gagelidze N., Ananiashvili T., Gordeziani M., Khatisashvili G.
	New approaches and tools for rehabilitation of chemically contaminated soils. Proceeding of the Georgian National
	Academy of Sciences, Chemical series, 2016, 42, 3, 406-409
2015	Gordeziani M., Kurashvili M., Khatisashvili G., Adamia G. Bioactivation of molecular oxygen – phenomen of
2015	Varazi T. Kurashvili M. Pruidze M. Khatisashvili G. Gagelidze N. Adamia G. Zaalishvili G. Gordeziani M.
2015	Sutton M. A new approach and tools for perfecting phytoremediation technology. American Journal of
	Environmental Protection, Science PG, ISSN, 2015, 4, 3, 143-147
2014	Kurashvili M.V., Adamia G.S., Ananiashvili T.I., Varazi T.G., Pruidze M.V., Gordeziani M.S., Khatisashvili G.A.
	Plants as tools for control and remediation of the environment polluted by organochlorine toxicants. Annals of
	Agrarian Science, 2014, 12, 3, 84-87
2014	Amiranashvili L., Kurashvili M., Adamia G., Gagelidze N., Varsimashvili Kh., Tolordava L., Anananiashvili T.,
	Khatisashvili G. Lindane degradarion ability of Pseudomonas strains isolated soils of Georgia. Annals of Agrarian
	Science, 2014, 12, 3, 18-21
2009	Knatisashvili G., Gordeziani M., Adamia G., Kvesitadze E., Sadunishvili T., Kvesitadze G. Higher Plants Ability
2000	to Assiminate Explosives, wond Academy of Science, Engineering and Technology, 2009, 57, 205-270 Khatisashvili G. Pruidze M. Adamia G. Bandzaladze S. Kiniani A. Chubinidze A. The Induction of Percendence
2009	and Phenoloxidase in Plant Leaves by Systemic Pesticides Annals of Agrarian Sciences 2009 7 4 63-65
2009	Kurashvili M., Gordeziani M., Varazi T., Ananiashvili T., Kordzadze N., Chubinidze A. The Iinfluence of
	Systemic Fungicides in vivo of Functioning of Some Oxidases of Plants. Annals of Agrarian Science, 2009. 7. 2.
	53-56

2006	Adamia G., Ghoghoberidze M., Graves D., Khatisashvili G., Kvesitadze G., Lomidze E., Ugrekhelidze D.,
	Zaalishvili G. Absorption, distribution and transformation of TNT in higher plants. Ecotoxicology and
	Environmental Safety, 2006, 64, 136-145
2006	Pruidze M.V., Khatisashvili G.A., Omiadze N.T. Oxidation of organic xenobiotics by phenoloxidase from tea
	leaves. Annals of Agrarian Science, 2006, 4, 2, 69-72
2005	Best E.P.H., Kvesitadze G., Khatisashvili G., Sadunishvili T. Plant processes important for the transformation and
	degradation of explosives contaminants. Zeitschrift für Naturforschung, 2005, 60c, 340-348
2005	Zaalishvili G., Varazashvili T., Ananiashvili T., Khatisashvili G., Kvesitadze E. Ultrastructural Reorganization of
	plant cell in the process of xenobiotics metabolism. Annals of Agrarian Science, 2005, 3, 3, 117-122
2004	Kvesitadze G., Khatisashvili G., Sadunishvili T. Mechanisms to Detoxify Selected Organic Contaminants in
	Higher Plants and Microbes, and Their Potential Use in Landscape Management. Letter report. Contract number
	62558-04-P-6107. European Research Office, U.S. Army Engineer Research and Development Center, United
	Kingdom, 2004, 144 p
2004	Khatisashvili G., Kvesitadze G., Adamia G., Gagelidze N., Sulamanidze L., Ugrekhelidze D., Zaalishvili G.,
	Ghoghoberidze M., Ramishvili M. Bioremediation of contaminated soils on the former military locations and
2004	proving grounds in Georgia. Journal of Biological Physics and Chemistry, 2004, 4, 5, 102-108
2004	Timikasnviii L., Varsimasnviii K., Gagendze N., Amiranasnviii L., Chrikisnviii D., Kirtadze E., Khalisasnviii G., Choghobaridza M. Influence of temperature on growth and degradation ability of microorganisms capable for
	degradation of 2.4.6-trinitrotoluene and mineral oil Proceedings of the Georgian Academy of Sciences Biological
	Series A 2004 30 4 493-497
2004	Varsimashvili Kh., Tinikashvili L., Amiranashvili L., Gagelidze N., Kirtadze E., Khatisashvili G., Ghoghoberidze
2001	M. Influence of some physicochemical factors in different microorganisms capable for degradation of 2,4,6-
	trinitrotoluene and mineral oil. Proceedings of the Georgian Academy of Sciences, Biological Series B. 2004, 2, 3-
	4, 104-109
2003	Adamia G., Khatisashvili G., Varazashvili T., Ananiashvili T., Gvakharia V., Adamia T., Gordeziani M.
	Determination of the type and rate of soil contamination with heavy metals and organic toxicants on the territories
	of military proving grounds in Georgia. Bulletin of the Georgian Academy of Sciences, 2003, 167, 1, 155-158
2003	Kiskeidze E., Zaalishvili G., Ebelashvili M., Khatisashvili G., Kurashvili M., Gordeziani M. Changes of plant
	monooxygenase system during xenobiotic oxidation. Proceedings of the Georgian Academy of Sciences,
	Biological Series A. 2003, 29, 5-6, 639-644
2003	of phenolic compounds of Saturaia hortensis, Journal of Biological Physics and Chemistry 2003, 3, 3/4, 85-88
2003	Kurashvili M Pruidze M Kiskeidze E. Varazashvili T Ananiashvili T Khatisashvili G Gordeziani M
2000	Influence of different factors on nitrobenzene oxidation in the plant cell. Journal of Biological Physics and
	Chemistry, 2003, 3, 2, 45-49
2001	Kvesitadze G., Gordeziani M., Khatisashvili G., Sadunishvili T., Ramsden J.J. Some aspects of the enzymatic basis
	of phytoremediation. Journal of Biological Physics and Chemistry, 2001, 1, 2, 49-57
2001	Varazashvili T., Khatisashvili G., Kurashvili M., Pruidze M., Ananiashvili T., Zaalishvili G., Gordeziani M.
	Nitrobenzene oxidizing enzymes in plant cells. Journal of Biological Physics and Chemistry, 2001, 1, 85-88
2000	Kiskeidze E., Khatisashvili G., Kurashvili M., Shavgulidze G. Action of lipid peroxidation on monooxygenase
	System participating in xenobiotic detoxification. Bulletin of the Georgian Academy of Sciences, 2000, 162, 1,
2000	Korte F., Kvesitadze G., Ugrekhelidze D., Gordeziani M., Khatisashvili G., Buadze O., Zaalishvili G., Coulston F.
2000	Zaslichvili C. Khatisashvili C. Uzrakholidza D. Gordazioni M. Kussitadza G. Blant potential for detavification
2000	(Review). Applied Biochemistry and Microbiology 2000 36 5 443-451
1999	Gordeziani M., Khatisashvili G., Ananiashvili T., Varazashvili T., Kurashvili M., Kvesitadze G., Tkhelidze P.
	Energetic significance of plant monooxygenase individual components participating in xenobiotic
	degradation. International Biodeterioration and Biodegradation, 1999, 44, 49-54
1997	Khatisashvili G., Gordeziani M., Kvesitadze G., Korte F. Plant monooxygenases: participation in xenobiotic
	oxidation. Ecotoxicology and Environmental Safety, 1997, 36, 118-122
1994	Khatisashvili G., Kurashvili M., Gordeziani M., Kvesitadze G. Functional evolution of separate components of
	plant monooxygenase system involved in xenobiotic detoxication. Fresenius Environmental Bulletin, 1994, 3, 621-
1993	Khatisashvili G., Kurashvili M., Chkhikvishvili I., Gordeziani M., Kvesitadze G. Transformation of
	monooxygenase mechanism into peroxidase one and microsomal oxidation of flavonoids in plants. Proceedings of the Georgian Academy of Sciences, Biological Series, 1003, 10, 318, 322 (in <i>Puresian</i>)
1003	Khatisashvili G. Kurashvili M. Gordeziani M. Kvesitadze G. Monoovygenase and perovidese pathways of
1775	xenobiotics detoxication in higher plants. Fresenius Environmental Bulletin 1993 2 103-108
1991	Gordeziani M., Khatisashvili G., Kurashvili M. Distribution of NADPHcvtochrome P-450-reductase in plant cell.

	Bulletin of the Georgian Academy of Sciences 1991 143 3 321-324 (in Russian)
	Bunchi of the Georgian Academy of Sciences, 1991, 145, 5, 521-524 (in Russian)
1991	Gordeziani M., Khatisashvili G., Kvesitadze G. Free and coupled with hydroxylation of xenobiotics oxidation of
	NADPH. Doklady AN SSSR, 1991, 320, 2, 417-420 (in Russian)
1987	Gordeziani G., Durmishidze S., Khatisashvili G., Adamia G., Lomidze, E. Investigation of biosynthesic
	and detoxificational ability of plant cytochrome P-450. Doklady AN SSSR, 1987, 295, 6, 1491-1493 (in Russian)
1987	Gordeziani M., Khatisashvili G., Adamia G., Lomidze E. The capacity of cytochrome P-450 to switch transferring
	from "endogenous" to "exogenous" regime of metabolism. Bulletin of the Georgian Academy of Sciences. 1987,
	126, 1, 161-164 (in Russian)
1986	Khatisashvili G., Adamia G., Gordeziani M., Lomidze E., Brisker V. Polarographic studies of plant microsome
	hydroxylation ability. Bulletin of the Georgian Academy of Sciences. 1986, 123, 3, 621-623 (in Russian)

8.3 Textbooks, Additional Manuals, and other Methodological Literature and Training means

Years		
2018	Gordeziani M., Khatisashvili G., Varazi T., Kurashvili M., Adamia G., Pruidze M. General course of	
	xenobiochemistry. Georgian National Academy of Sciences, Tbilisi, 2018, 215 pages (Textbook) (In Georgian)	
2017	Khatisashvili G., Lomidze E., Elizbarashvili E. Attractive chemical experiments. Tbilisi, Saqmatsne Publishers,	
	2017, 46 pages. (Methodological Literature) (In Georgian)	
2014	Gordeziani M., Khatisashvili G. General course of ecological chemistry. Tbilisi, Mtsignobari, 2014, 215 pages.	
	(Textbook) (In Georgian)	

8.4 Electronic Publications

Years	Title	Address of Source

8.5 Participation in Scientific Symposiums, Conferences for the last ten years

Years	Title	Name of Event	
2023	English-Georgian and Georgian-English explanatory	International Conference Lexicography in the XII	
	online dictionary of chemistry terminology. , 70-72	Century. Ilia State University, 10-12 November, 2023	
2018	Enhancing Phytoextraction Of Copper(II)-Ions By	EuroSciCon Joint Event on Biotechnology, Stem Cell	
	Using Glycolipid Biosurfactants.	and Molecular Diagnostics Amsterdam, Netherlands,	
		April 16-17, 2018	
2016	New Approaches and Tools For Rehabilitation of	International Scientific Conference: Modern Researches	
	Chemically Contaminated Soils.	and Prospects of Their Use in Chemistry, Chemical	
		Engineering and Related Fields, Ureki, Georgia,	
		September, 21-23, 2016,	
2015	Creation of ecologically friendly technology for	VII Moscow International congress "Biotechnology:	
	cleaning environment polluted by organochlorine	State of the Art and Prospects of Development".	
	pesticides.	Moscow, Russia, March 19-22, 2015	
2015	Model testing of new approach for cleaning soils	Proceedings of 13th International UFZ-Deltares	
	polluted with organochlorine pesticides.	Conference on sustainable use and management of soil,	
		sediment and water resources, Copenhagen, Denmark,	
		June 9-12, 2015	
2015	Creation of phytoremediation technology for cleaning	International Conference: Applied Ecology: Problems,	
	environment polluted with organochlorine pesticides.	Innovations. Batumi, May, 2015	

9. Organizational Work (Holding of Congresses and Conferences, Editorial Work)

Years	Name

10. Inventions (Author's Certificate, Patents)

Years	Name
2019	Utility model: Method of cleaning water polluted with dichlorodiphenyltrichloroethane (DDT) by using blue-

	green alga Spirulina. Sakpatenti, AU 2018 14896	
2018	Utility model: Method of cleaning water polluted with 2,4,6-trinitrotoluene by using blue-green alga	
	Spirulina. Sakpatenti. AU 2018 14736	
2004	Utility model: Method of cleaning of soils contaminated with crude oil and oil products. Sakpatenti. GE U 2004	
	1128	

11. International and Local Scientific grants

Years	Name		
2022-2024	Arsenic pollution of waters: a nature-based decontamination technology using an aquatic macrophyte (Lemna		
	spp.) and a blue-green alga (Arthrospira (Spirulina) platensis)		
2022-2023	English-Georgian and Georgian-English technological explanatory dictionary in chemistry		
2021-2022	Online school "Backpack"		
2020-2021	Educational portal "Backpack"		
2020-2021	Development of diagnostic and remedial biotechnologies to clean up arsenic-contaminated environment in		
2020-2021	Georgia		
2017-2019	Development of quick response strategy against chemical pollution of soils by using biochips and biosorbents		
2016-2018	Development of a novel technology for cleaning chemically polluted waters by using algae Spirulina		
2015-2017	Investigation of algae Spirulina's potential of cleansing chemically polluted waters		
2013-2014	Cleaning soils polluted with organochlorine pesticides by plants		
2012-2014	Targeting of detoxification potential of microorganisms and plants for cleaning environment polluted by		
2012-2014	organochlorine pesticides		
2011-2013	"Biosorbent Against Chemical Contamination of Soils" – creation of a new remediation technology		
2010-2012	New technology of complex phytoremediation of soils on basis of biosurfactants and biodiesel plants		
2008-2010	Plants as tools for control and remediation of environment polluted by organochlorine toxicants		
2007-2010	Creation of a novel complex phytoremediation technology for rehabilitation of soils and waters polluted with		
2007 2010	explosives		
2006-2009	Novel approach for the improvement of ecological guarantee of oil pipelines		
2002-2005	Elaboration of a new strategy of phytoremediation and long-term protection of environment polluted by		
2002 2003	hydrocarbons		
2001-2004	Elaboration of methods of bioremediation of contaminated soils on former military locations and proving		
2001-2004	grounds in Georgia		
1999–2001	Coordination of oxidative enzymes as a key factor in detoxification of organic xenobiotics in plants		

12. Scientific-Commercial Activity, author's certificate, Implementation

Years	Name

13. Other Activities

	Name	Years
Supervision of Theses and Masters	PhD Thesis:	2023
work	Marina Pruidze - "About the role of plant phenoloxidases in	
	the oxidation of xenobiotics"	
	PhD Thesis:	2023
	George Adamia - "Development of biochemical criteria for	
	selection of plants for phytoremediation of soils contaminated	
	with lead and 2,4,6-trinitrotoluene"	
	Master's Thesis:	2007
	Tamar Samadashvili - "Development of a method for	
	remediation of waters polluted with organic compounds"	
	Master's Thesis:	2008

	Natia Kordzadze - "Effect of systemic fungicides on the	
	activities of plant oxidative enzymes"	
	Master's Thesis:	2008
	Sophio Bandzeladze - "Induction of oxidative enzymes in	
	plant leaves by systemic pesticides - Topaz and Bi-58"	
	Master's Thesis:	2010
	Tea Giorgadze - "Induction of plant detoxification enzymes	
	by some systemic and contact fungicides widely used in	
	Georgia"	
	Master's Thesis:	2010
	Rita Kvinikadze - " <i>In vivo</i> transformations in plants of some	
	systemic insecticides widely used in Georgia"	
	Master's Thesis:	2011
	Mariam Kobakhidze - "Phytoremediation method for	
	cleaning soil contaminated with petroleum hydrocarbons"	
	Master's Thesis:	2017
	Nana Khuskivadze - "Development of a new method for	
	cleaning gelatin-damaged art works using microorganisms	
	and surface-active compounds of biological origin"	
	Master's Thesis:	2022
	Ana Gujabidze - "Bacteria-bioremediators for the technology	
	of cleaning up arsenic-contaminated soils in Georgia"	
Participation in International, State and		
Regional Programs		

14. Awards and Prizes, Honorary Title

Date	Name of Awards, Prizes, Honorary Title
1997–1998	Stipend of the President of Georgia (II degree)
2001–2003	Stipend of the President of Georgia (I degree)
2013	The Order of Honor (Georgia)
2020	Georgian National Award
2022	Georgian National Academy of Sciences honorary diploma

15. Family Status

Married, with three children and one grandchild