CURRICULUM VITAE

George Kvesitadze - Professor of Biochemistry, and Biotechnology, Ph.D., D.Sc., Academician of the Georgian National Academy of Sciences Citizen of Georgia, born: May 30, 1942

EDUCATIONAL BACKGROUND:

1964	Graduated from Georgian Agrarian University, Department of Technology
1969	Ph.D., Moscow, Bach Institute of Biochemistry
1980	D.Sc., Moscow, Bach Institute of Biochemistry, Russian Academy of Sciences
1978 - 1979	Post Doctoral research: University of Pennsylvania, Philadelphia, USA
1983 - 1984	Post Doctoral research: Lehigh University, Bethlehem, USA.
1986	Post Doctoral research: Munich, Max Plank Institute of Biochemistry

PERSONAL:

- **Full Professor, Agricultural University of Georgia**
- **Honorary citizen of State Georgia, USA (2006)**
- **Member of Georgian National Academy of Sciences**
- **President of Georgian National Academy of Sciences.**
- **Member of Editorial Boards of international Journals (*Fresenius Environmental Bulletin, Ecotoxicology and Environmental Safety, Journal of Biological Physics and Chemistry*), two Journals of Russian Academy of Sciences (*Biochemistry, Applied Biochemistry and Microbiology*),** Don State Technical University's journal "Science Almanac of Black Sea Region Countries" Editorian council of National Academy of Sciences of Ukraine, Palladin Institute of Biochemistry journal Biotechnologia Acta. **Editor-in-Chif Journal of the Academy of Sciences of Georgia (Bulletin of the Georgian Academy of Sciences.), International Journal of Food Science and Biotechnology.**
- **Associated member of NATO Life Sciences and Technologies Panel (1999-2001).**
- **Member of Israeli-France Hi-Tech Association. Expert of Euro Council in Biotechnology.**
- **Held over 80 seminars in the USA, Germany, Belgium, Austria, France, England, Spain, Italy, Japan.**
- **Member of International Association of Academies of Sciences (2013)**
- **Member of the European Academy of Sciences and Arts (2013)**
- **Member of the world Academy of Art and Sciences (2013)**

- **Was awarded Commemorative Medal for Science Promotion. International Association of Academies of Sciences (2014).**
- **Was awarded "the Heydar Aliyev Medal" for fruitful collaboration with Azerbaijan scientists (2014).**
- **Honorary Doctor of Don State Technical University (2015)**
- **Honorary citizen of Tbilisi (2016)**
- **Honorary Doctor of David Agmashenebeli University of Georgia (2017)**
- **Was awarded with medal of Moldova Academy of Sciences (2017)**
- **Honorary Professor of the Kazakh National Agrarian University the decision of the Academic Council (2017)**
- **Was awarded with Qilu Friendship Award by People's Government of Shandong Province, China (2017)**
- **Honorary Professor of Shandong University of Technology China (2018)**
- **Special Consultant for Datong Shuanghuang Industry Association (2019)**
- **Elected an Honorary Member of the Hong Kong International Institute of Engineering and Technology (2020).**
- **In 2021 was granted with the Georgian National Prize and was awarded title of Laureate for the work: Biochemical Mechanisms of Detoxification in Higher Plants – Basis of Phytoremediation, Springer-Verlag Berlin Heidelberg, 2006.**
- **Was awarded with the Ekvtime Takaishvili Bronze Medal and was conferred the honorary title of Ekvtime Takaishvili Laureate, 2022.**
- **Was awarded with the Gold Medal of Tbilisi State University, 2022.**
- **Was conferred an honorary diploma for his outstanding contribution in the field of biology by the Catholicos Patriarch of All Georgia, 2022.**
- **Was conferred the title of Knight of Kindness by the Georgian Writers' Union for his fruitful scientific and social work, 2022.**

INSTITUTIONAL AFFILIATIONS:

1973-1982	**Head of Biotechnology Department of the Institute of Plant Biochemistry, Academy of Sciences of Georgia, Tbilisi**
1983-1987	**Deputy Director of the Institute of Plant Biochemistry Academy of Sciences of Georgia**
1984-1987	**Deputy Chairman of Georgian Committee of Science and Technology**
1987- 2008	**Director of the Durmishidze Institute of Biochemistry and Biotechnology (Formerly Institute of Plant Biochemistry)**
2008- 2011	**Head of Scientific Council, Durmishidze Institute of Biochemistry and**

	Biotechnology.
1992-1994	**Minister of Agriculture and Food Processing of Georgia**
1994-1996	**Chief State Adviser in Science and Ecology**
2003-2013	**Academician-Secretary of Biology Department of Georgian National Academy of Sciences**
1992-2002	**Head of Biotechnology Department, Georgian Technical University**
2011	**Director of Durmishidze Center of Biochemistry and Biotechnology, Georgian Technical University**
2013	**President of Biosafety Association of Georgia**
2013	**Director of Durmishidze Institute of Biochemistry and Biotechnology, AUG**
2013-2023	**President of Georgian National Academy of Sciences**
2023-	**General Adviser of the Georgian National Academy of Sciences**

MAIN FIELDS OF ACTIVITIES:

Collection of mesophilic and extremophilic microorganisms (more than 3000 strains). Characterization of stable enzymes (cellulases, xylanases, amylases, etc) isolated from microorganisms growing at extreme conditions. Elaboration of new technologies based on the action of microorganisms and their enzymes. Investigation of microorganisms and plants abilities to assimilate and metabolize organic ecotoxicants and heavy metals. Biological control of plant bacterioses.

GRANTS:

- Coordination of Plant Oxidative Enzymes as a Key Factor in Degradation of Organic Xenobiotics. INTAS-Georgia, 97-0716. Elaboration of Methods of Bioremediation of Contaminated Soils on Former Military Locations and Proving Grounds in Georgia. ISTC, #G-369.
- Elaboration of a new strategy of phytoremediation and long-term protection of the environment polluted by hydrocarbons. ISTC #G-718.
- Microbial diversity for novel biotechnology applications. IPP project STCU #P-196. Partner Project. Financed by DOE. Partner LBNL, USA. 2005-2008.
- Novel approach for the improvement of ecological guarantee of oil pipelines. STCU 3802. 2006-2009. Project manager.
- Establishment of a Biotechnological Network of Regional Microbial Culture Collections in the Caucasus. CRDF_SCCRP, SCI-010002-SC-05. 2007-2008.
- Creation of a novel complex phytoremediation technology for rehabilitation of soils and waters polluted with explosives. ISTC G-1408. 2008-2010.
- STCU – 4784 - New technology of complex phytoremediation of soils on basis of biosurfactants and biodiesel plants. 2009-2011. Project manager.
- Development of a novel, cost-effective bioprocess for production of fuel ethanol from herbaceous lignocellulosic wastes. ISTC. G-1624.

- The creation of mycelial fungi collection isolated from different soil-climatic zones of Georgia and selection of industrially valuable strains. 2006-2009 -GNSF/ST06/-087.
- Mechanisms to detoxify selected organic contaminants in higher plants and microbes, and their potential use in landscape management. US Army Corps of Engineers. Engineer Research and Developing Center. Environmental Laboratory, 3909 Halls Ferry Road, Vicksburg, MS, USA. Project, Contract number 62558-04-P-6107.
- Bacteriophage, an effective biological tool against plant diseases caused by pathogenic bacteria. ISTC #G-1129.
- Biopreparation against tomato bacterial spot. STCU- GNSF #5001.
- LBNL-0223-GE / STCU P-433. Targeted Discovery of Lignocellulose-Deconstructing Enzymes from Extremophilic Fungi. 2010-2012.
- Evaluation of certain microbial strains and certain plant components for potential commercial application. Funding by PIONEER. CRDF- GEB2-30016-TB-10 (GAP).2010-2013.
- Isolation and characterization of probiotics that selectively grow on milk oligosaccharides. LBNL-0225-GE / STCU P-509. 2011-2013.
- Integrating Georgia into the European Research Area: reinforcing Georgian international cooperation capacities in the field of Food and Biotechnologies. FP7 program. N° 293514. 20012-2015. Project coordinator.
- ISTC G-2117. Extremophilic mycelial fungi stable enzymes for the creation of biotechnology of production of fuel-bioethanol from agricultural and industrial lignocellulosic wastes.
- Heat stable a-and glucoamylase performing one step enzymatic hydrolysis of starch to fermentable glucose (STCU- SRNSF). Project#7092.

LANGUAGES: Georgian, English (Fluently), Russian (Fluently), German (passive).

PATENTS:

Patent of USA 3826716. (1974). Method for preparing of alpha-amylase. Kvesitadze G.I., Kokonashvili G.N., Fenixova R.V.

Patent of Germany 2151265. (1972). Verfahren Zur Herstellung von alpha-amylase. Kvesitadze G.I., Kokonashvili G.N., Fenixova R.V.

Patent of Switzerland 583777. (1976). Verfaren Zur Herstellung von Glucoamylase, alpha-amylase and Transglucosidase. Durmishidze S.V., Kvesitadze G.I., Kokonashvili G.N.

Patents of USSR

659617. (1979). Strain *Aspergillus niger* 147-A producer of acid-stable alpha-amylase and glucoamylase. Kvesitadze G., Kvachadze L., Aleksidze T., Koridze V.

1161549. (1983). Microscopic fungi strain *Mycellia sterilia*-IBR producer of phenolase. Durmishidze S., Pruidze G., Kvachadze L.

1252336. (1984). Strain *Aspergillus terreus*-490 producer of cellulases. Kvesitadze G., Kvachadze L., Loginova L.

1490953. (1989). Strain *Aspergillus awamori*-producer of glucoamylase. Kvesitadze G., Kvachadze L., Kutateladze.

1509402. (1989). Strain *Penicillium canescens*-producer of b-galactosidase. Kvesitadze G., Gomarteli M., Tsereteli A., Bilai T.

1643608. (1990). Strain *Allesheria terrestris* producer of cellulases. Kvesitadze G., Kvachadze L., Kvatadze N.

1667374. (1991). Strain *Sporotrichum pulverulentum* source of the protein rich biomass. Kvachadze L., Kvesitadze G., Aleksidze T.

1966-2021 – 19 Patents of Georgia

PUBLICATIONS: 14 books; more than 400 scientific publications; 29 inventions; holder of 29 USSR, one USA, two Swiss and one German patents.

LIST OF SELECTED PUBLICATIONS

Kvesitadze, G.I. (1990), *Enzymes of Microorganisms Living under Extreme Conditions* [in Russian], Ed. W. Kretovich, Nauka, Moscow, 52 p.

Kakhniashvili, Ch., Kvesitadze, G. Peptide conjugates of phenoxyacetic and 2,4-dichlorophenoxyacetic acids in plants. *Fresenius Environmental Bulletin,* 1993, 2, 90-96.

Khatisashvili, G., Kurashvili, M., Gordeziani, M., Kvesitadze, G. Monooxygenase and peroxydase pathwayes of xenobiotics detoxication in higher plants. *Fresenius Environmental Bulletin,* 1993, 2, 103-108.

Sadunishvili, T., Gvarliani, M. Nutsubidze, N., Kvesitadze, G. Enzymatic mechanism of ammonia excess detoxication in kidney bean. *Fresenius Environmental Bulletin,* 1993, 2, 534-539.

Khatisashvili, G., Kurashvili, M., Gordeziani, M., Kvesitadze, G. Functional evalution of separate components of plant monooxygenase system involved in xenobiotic detoxication. *Fresenius Environmental Bulletin,* 1994, 3, 621-626.

Sadunishvili, T., Nutsubidze, N., Kvesitadze, G. Effect of methionine sulfoximine on nitrogen metabolism and externally supplied ammonium assimilation in Kidney bean. *Ecotoxicology and Environmental Safety*, 1996, 34, 70-75.

Ugrekhelidze, D., Korte, F., Kvesitadze, G. Uptake and transformation of benzene and toluene by plant leaves. *Ecotoxicology and Environmental Safety*, 1997, 37, 24-28.

Buadze, O., Kvesitadze, G. Effect of low-molecular-weight alkanes on the plant cell photosynthetic apparatus. *Ecotoxicology and Environmental Safety*, 1997, 38, 36-44.

Khatisashvili, G., Gordeziani, M., Kvesitadze, G., Korte, F. Plant monooxygenases: participation in xenobiotic oxidation. *Ecotoxicology and Environmental Safety*, 1997, 36, 118-122.

Ugrekhelidze, D., Kvesitadze, G. Assimilation and metabolism of methane by higher plants. *Fresenius Environmental Bulletin*, 1997, 6, 740-748.

Buadze, O., Sadunishvili, T., Kvesitadze, G. The effect of 1,2-benzantracene and 3,4-benzpyrene on the ultrastructure of maize cells. *International Biodeterioration and Biodegradation,* 1998, 41/2, 119-125.

Ugrekhelidze D., Kvesitadze G., Arziani B., Mithaishvili T., Phiriashvili V. Detoxication of phenol in annual plant seedlings. *Ecotoxicology and Environmental Safety.* 1999, 42, 119-124.

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.

Mchedlishvili N.I., Pruidze G.N., Omiadze N.T., Zukhbaya R.V. Soluble and Immobilized Phenol Oxidase of the Fungus Mycelia sterilia IBR 35219/2: a Comparative Study. *Appl. Biochem. Microbiol.* 2000, V.36, N 2, pp.138-142.

Zaalishvili G., Khatisashvili G., Ugrekhelidze D., Gordeziani M., Kvesitadze G. Plant potential for detoxification *(Review). Applied Biochemistry and Microbiology*, 2000. 36, 5, 443-451.

Korte F., Kvesitadze G., Ugrekhelidze D., Gordeziani M., Khatisashvili G., Buadze O., Zaalishvili G., Coulston F. Review: Organic toxicants and plants. *Ecotoxicology and Environmental Safety*. 2000, 47, 1, 1-26.

Zaalishvili, G., Lomidze, E., Buadze, O., Sadunishvili, T., Tkhelidze, P., Kvesitadze,G. Electron microscopic investigation of benzidine effect on maize root tip cells ultrastructure, DNA synthesis and calcium homeostasis. *International Biodeterioration and Biodegradation,* 2000, 46, 2, 133-140.

Kvesitadze G., Gordeziani M., Khatisashvili G., Sadunishvili T., Ramsden J.J. Review: Some aspects of the enzymatic basis of phytoremediation. *Journal of Biological Physics and Chemistry,* 2001, 1, 2, 49-57.

Arziani B., Ugrekhelidze D., Kvesitadze G. Detoxication mechanism of exogenous monoatomic phenols in pea seedlings. . *Ecotoxicology and Environmental Safety,* 2002, 51, 85-89.

Zaalishvili, G., Sadunishvili, T. Scalla, R, Laurent F. and Kvesitadze G. Electron Microscopic Investigation of Nitrobenzene Distribution and Effect on Plant Root Tip Cells Ultrastructure. *Ecotoxicology and Environmental Safety,* 2002, 52, 70-79.

Papeta, N. F., Tsilosani, G. M., Nikolaishvili, N. T., and G. I. Kvesitadze (1995), Identification, purification, and characterization of xylanase from *a Nocardiopsis sp*. Inhibiting the growth of some phytopathogenic fingi. *Biochemistry* (Moscow) 60, 429-433.

Kvesitadze, G. I., Kvachadze, L. L., E. G. Kvesitadze (1997), Selection of thermophilic cellulase-producing micromycetes. *Appl. Biochem. Microbiol.* (Moscow) 33, 132-137.

Kvesitadze, E. G., Nizharadze, D. N., Buachidze, T. Sh., and G. I. Kvesitadze (1997), Thermostability and physical-chemical properties of endo- and exoglucanases of thermophilic microscopic fungi. *Biochemistry* (Moscow), 62, 176-183.

Kvesitadze, E., Adeishvili E., Gomarteli, M., Kvachadze, L., and G. Kvesitadze (1999), Cellulase and xylanase activity of fungi in a collection isolated from the southern Caucasus. *Intern. Biodeter. Biodegr.* 43, 189-196.

Kvesitadze G., Kvesitadze E. Biotechnology. Tbilisi 1999, 432p. (In Georgian).

Kvesitadze G., Ugrekhelidze D. Absorption and Transformation of Gaseous Alkanes of Natural Gas and Petroleum by Higher Plants. The forst International Congress of Petroleum Contaminated, Soils, Sediments and Water. Durmishidze Institute of Biochemustry and Biotechnology of Georgian National Academy of Sciences. Tbilisi, Georgia. F. Korte and H. Parlar, Institute of Chemistry, Germany. 2001 (Poster session)

Kvesitadze, G. I., Bezborodov A. M. (2002). *Introduction in Biotechnology*. Ed. Skryabin K.G., Nauka, Moscow, 284 p. (in Russian).

Shalashvili A., Zambakhidze N., Ugrekhelidze D., Parlar H., Leupold G., Kvesitadze G., Simonishvili Sh.. (2002), Antioxidant Activity of Grape Bioflavonoids and Some Flavonoid Standards. *Advances in Food Sciences*. 24,1, 24-29.

Omiadze N, Parlar H., Leupold G., Mchedlishvili N., Gulua L., Akhvlediani K., Abutidze M, Sadunishvili T., Rodríguez – López J. N, Kvesitadze G. Inhibition of apple phenoloxidase and peroxidase by natural phenolics of tea leaves. *Advances in Food Sciences* 2004, V.26, 1, p.26-31.

Mitaishvili T., Scalla R., Ugrekhelidze D., Tsereteli B., Sadunishvili T., Kvesitadze G. Transformation of aromatic compounds in plants grown under aseptic conditions. *Zeitsschrift fur Naturforschung 60c.* 97-102, 2005.

Elly P.H. Best, G.Kvesitadze, G. Khatisashvili, T. Sadunishvili. Plant processes important for the transformation and degradation of explosives contaminants.*Z. Naturforschung 60c*, 153-368, 2005.

Kvesitadze G., Khatisashvili G., Sadunishvili T., Evstigneeva Z. G. *Detoxification of Antropogenic Toxicants in Higher Plants.* 199p, Ed.V.Popov. Maik-Nauka, 2005. (in Russian).

Kvesitadze, G., Khatisashvili, G., Sadunishvili, T, Ramsden, J.J. *Biochemical Mechanisms of Detoxification in Higher Plants. Basis of Phytoremediation.* 262p. Springer, 2006.

Kvesitadze G., Kvesitadze E., *Degradation of anthropogenic contaminants by higher plants.* In: Complexity and Security J.J. Ramsden and P.J. Kervalishvili (Eds.) IOS Press, Amsterdam, Berlin, Oxford, Tokyo, Washington, DC. 2008, 277-298 p.

Kvesitadze E., Sadunishvili T., Kvesitadze G. Mechanisms of Organic Contaminants Uptake and Degradation in Plants. In: *World Academy of Science, Engineering and Technology*, ISSN 2070-3724. Vol.55, 2009, p.458-468.

M.A.Bezborodiv, G.I.Kvesitadze (2011). Microbiological Synthesis. "Prospect Nauki", St.Petersburg, ISSN 978-5-903090-52-5.

G. Kvesitadze, T. Sadunishvili , T. Dudauri, N. Zakariashvili, G. Partskhaladze, V. Ugrekhelidze, G. Tsiklauri, B. Metreveli, M. Jobava. Two-stage anaerobic process for bio-hydrogen and bio-methane combined production from biodegradable solid wastes. *Energy*, 37, 94-102, 2012 (ISSN 0360-5442).

Kvesitadze E., T. Sadunishvili, G.Kvesitadze. Ecological Potential of Plants. Chapter 11, in: *Advanced Bioactive Compounds Countering the Effects of Radiological, Chemical and Biological Agents. Strategies to Counter Biological Damage*. Ed: Grant N. Pierce, Volodymyr I. Mizin, Alexander Omelchenko. Springer, 2012, p.133-143. http://link.springer.com/book/10.1007/978-94-007-6513-9/page/2

Giorgi Kvesitadze, Gia Khatisashvili, Tinatin Sadunishvili. Metabolism of ^{14}C-containing contaminants in plants and microorganisms: in: Dharmendra Kumar Gupta Clemens Walther *Editors*: Radionuclide Contamination and Remediation Through Plants, 978-3-319-07664-5, 320979, pp 254-270. Springer 2014.

N. I. Mchedlishvili, N. T. Omiadze, M. O. Investigation of phenolic content, antioxidant and antimicrobial activities of natural food red colorant from Phytolacca americana l. Fruits. Abutidze, J. N. Rodrigez_Lopez, T. A. Sadunishvilia, M. A. Gurielidze, G.I. Kvesitadze. Annals of Agrarian Science, 2014, Vol. 12, No. 3, pp. 71–75.

N. I. Mchedlishvili, N. T. Omiadze, M. O. Abutidze, J. N. Rodrigez_Lopez, T. A. Sadunishvilia, M. A. Gurielidze, G.I. Kvesitadze. Investigation of Phenolic Content, Antioxidant and Antimicrobial Activities of Natural Food Red Colorant From *Phytolacca Americana L. Fruits.* International Conference on Food and Biotechnology ICFB 2014.

M. O. Abutidze, N. T. Omiadze, N. I. Mchedlishvili, J. N. Rodriguez-Lopez, T. A. Sadunishvili, S. Chazarra, G.I. Kvesitadze. New antiviral herbal remedies for herpes simplex and herpes zoster. Annals of Agrarian Science, 2014, Vol. 12, No. 3, pp. 15–17.

Sadunishvili T., Kvesitadze E., Kvesitadze G. *Xanthomonas vesicatoria* specific virus and its potential to prevent tomato bacterial spot disease. Chapter in: *Nanotechnology to Aid Chemical and Biological Defence*. T. Camesano Ed., Springer 2015. 25 pages.

Kvesitadze G., Khatisashvili G., Sadunishvili T., Kvesitadze E. Plants for Remediation: Uptake, Translocation and Transformation of Organic Pollutants. in: M. Ozturk et al., Eds: *Plants, Pollutants and remediation.* Springer 2015. 241-309.

Kvesitadze E., Urushadze T., Sadunishvili T., Kvesitadze G. Industrial Engineering. In: *Text Book. Current Applications of Biotechnology*. 2015 pp. 103-140.

E. Kvesitadze, G. Kvesitadze. Microbial collections as a basis for creation modern biotechnologies. Science, Technology and Innovative Technologies in the Prosperous Epoch of the powerful state. Abstract of paper of the International Scientific Conference (June 11-13, 2015). pp 7-8.

Kutateladze L.I., Urushadze T.R., Khvedelidze R.M., Sadunishvili T.A., Burduli T.A., Tsiklauri N.D., Kvesitarze G.I. Microbial Alkaline Proteases Isolated from South Caucasus. Session 6. Nanotechnology and Biotechnology. Abstract book. International Research and Practice conference: Nanotechnology and Nanomaterials. (NANO 2015). 26-29 August 2015, Lviv, Ukraine. p. 443.

G. Kvesitadze. Positive neutrality of Turkmenistan: Historical choice. Foreign Polycy and Diplomacy of Turkmenistan. Туркменистанаю 1. 2015, 37-42.

Kvesitadze G., Gerasimov A., et al. The role of chemical bonds in dimensional effect of nanomaterials. International Conference: Nanotechnology and Nanomaterials (NANO-2016), 27-29 August, 2016, Lviv, Ukraine. Abstract Book, p.140-141.

Sadunishvili T., Kutateladze L., Urushadze T., Khvedelidze R., Zakariashvili N., Jobava M., Kvesitadze G. Cellulolytic and Xylanolytic Enzymes from Mycelial Fungi. World Academy of Science, Engineering and Technology. Conference Proceedings, Rome, Italy, Sep 18-19, 2017, 19 (9), Part XI, p.1231.

Kvesitadze G., Sadunishvili T., Kutateladze L., Zakariashvili N., Jobava M., Khvedelidze R., Urushadze T., Aleksidze T. Cellulases and hemicellulases from microscopic fungi. Abstract Book. International Research and Practice Conference: Nanotechnology and Nanomaterials (NANO-2017), 23-26 August 2017, Chernivtsi, Ukraine. Page 650.

Kvesitadze G., Sadunishvili T., Kutateladze L., Khvedelidze R, Khokhashvili I., Urushadze T., Zakariashvili N., Tsiklauri N. and Aleksidze T. Pretreatment and enzymatic hydrolysis of agricultural residues. 15th International Conference on Environmental Science and Technology, Rhodes, Greece, 31 August - 2 September, 2017.

G. Kvesitadze, L. Kutateladze, T. Sadunishvili, R. Khvedelidze, T. Urushadze, N. Zakariashvili, N. Tsiklauri, M. Jobava. Selection of mycelial fungi producers of stable cellulases, xylanases and laccases for agricultural residues effective degradation. 15th International Conference on Environmental Science and Technology, Rhodes, Greece, 31 August - 2 September, 2017.

G. Kvesitadze, R. Shengelia. The Science, Religion and Culture of Georgia. A Concise and Illustrated History. Cacasus Region Political, Economic and Security Issues. NOVA Science publishers, 2017, New York, pp.107.

G. Kvesitadze, N.V. Dura. The roots of the Georgian and Romanian Science and Culture. Bucharest, 2017.pp. 183.

N. Gagelidze, L. Amiranashvili, T. Sadunishvili, G. Kvesitadzea, T. Urushadze, T. Kvrivishvili. Bacterial composition of different types of soils of Georgia. Annals of Agrarian Science. Volume 16, Issue 1, March 2018, Pages 17-21.

Giorgi Kvesitadze, Besarion Ch. Meskhi, Gia Khatisashvili. Three Stage Biotechnology for the Rehabilitation of Soils Polluted With Explosives. Scientific almanac of the Black Sea countries. 2018. Т. 13. № 1. DOI 10.23947/2414-1143-2018-13-1-60-77. UDC 57. стр. 53-67.

Kvesıtadze G., Kutateladze L., Sadunıshvılı T., Khvedelıdze R., Urushadze T., Zakarıashvılı N., Tsıklaurı N., Jobava M., Khokhashvili I. Selection of Mycelial Fungi Producers of Stable forms of Cellulases, Xylanases and Laccase. Microbes and Their Viruses: Ecology, Biodiversity and Applications", September 22-27, 2019, (www.gagam.ge). Tbilisi, Georgia.

Kvesıtadze G., Kutateladze L., Urushadze T., Zakarıashvılı N., Jobava M., Burduli T. Amylase Production by Microscopic fungi Isolated from South Caucasus. International Conference on Technology, Engineering and Science (ICONTES). 26-29 October, 2019, Antalya, Turkey.

Sadunishvili T., Węgierek-Maciejewska A., Arseniuk E., Gaganidze D., Amashukeli N., Sturua Neli., Amiranashvili L.., Kharadze Sh., Kvesitadze G. Molecular, morphological and pathogenic characterization of Clavibacter michiganensis subsp. sepedonicus strains of different geographic origins in Georgia. Eur J Plant Pathol, (2020) 158:195–209. https://doi.org/10.1007/s10658-020-02066-x.

G. Kvesitadze. Modern ecology: environmental sustainability, causes of imbalance and remediation technologies. Georgian National Academy of Sciences. Tbilisi. 2020. 260 p.

Т.А. Садунишвили, Г.А. Хатисашвили, О.С. Гурова, Н.С. Самарская. Под общей редакцией: Г.И. Квеситадзе, Б.Ч. Месхи, В.И. Беспалов. Инновационные методологии защиты окружающей среды. Глобальные экологические проблемы и биотехнологический

подход. Министерство Науки и Высшего Образования Российской Федерации. Донской Государственный Технический Университет, Национальная Академия Наук Грузии. Ростов-на-Дону. Часть 1, 2021, стр. 146.

О.С. Гурова, Т.А. Садунишвили, О.Н. Парамонова, Н.С. Самарская, Е.П. Лысова. Под общей редакцией: Г.И. Квеситадзе, Б.Ч. Месхи, В.И. Беспалов. Инновационные методологии защиты окружающей среды. Систематизация ремедиационных мероприятий и физико-энергетический подход. Донской Государственный Технический Университет, Национальная Академия Наук Грузии. Ростов-на-Дону. Часть 2, 2021, 150 с.

Kvesıtadze G., Tsıklaurı N., Khvedelıdze R., Kutateladze L., Sadunıshvılı T. Conversion of agro-industrial wastes into non-toxic protein-rich food additives by basidial fungi strains isolated from diverse ecosystems of Georgia. 17th International Conference on Environmental Science and Technology CEST2021. Athens, Greece, 1-4 September, 2021.

G. Kvesitadze, R. Metreveli. Science of Georgia. Of the 80th Anniversary of the Academy of Sciences. 2021, p. 91. ISBN 978-9941-494-15-4.

G. Kvesitadze. Ecology. Biological Concept. Georgian National Academy of Sciences, 2021, p. 51.

G. Kvesitadze. Innovative environmental biotechnologies based on the action of microorganisms and plants. International scientific conference «Science, technique and innovation in the Epoch of Power and Happiness»/Academy of Sciences of Turkmenistan. 12-13 June, 2022.

G. Kvesitadze, R. Khurodze, R. Kavtaradze. Hydrogen energy - a Way to Solve the Global Problems of Civilization. Georgian National Academy of Sciences. Tbilisi 2022, p. 76.

G. Kvesitadze. Ecological Potential of the Planet. Georgian National Academy of Sciences. 2022, p. 203.

G. Kvesitadze, A. Potemkin. Homo Sapiens & the Technogenic Environment. UNI Madrid, PIKO VALANDA Publishing House. 2023, p. 199.

E. Kvesitadze, R. Gakhokidze, G. Khatisashvili, G. Kvesitadze. Ecological and Food potential of Earth. Publishing House Favorite. pp. 215.