

Gulchina Kuchava

1. **Enrichment of gold and silver on a chelate sorbent POLYORGS XI** - /Shvoeva O.P., Kuchava G.P., Myasoedova G.V., Savvin S.B., Bannykh L.N., Zhukova N.G., Grishina O.N., Mezhirov M.S./ - N. J. "Analytical Chemistry", vol.40, N 9, Moscow, p.1606-1610, 1985.
2. **The sorption concentration of gold and silver with chelate sorbent POLYORGS XI-N** - /Kuchava G.P., Shvoeva O.P., Myasoedova G.V., Savvin S.B./ The II republic conference on analytic chemistry. Theses report, Ujgorod, October, p.59, 1985.
3. **Sorption-atomic-absorption determination of gold and silver in natural waters** -/Shvoeva O.P., Kuchava G.P., Kubrakova I.V., Myasoedova G.V., Savvin S.B., Bannykh L.N./ J. "Analytical Chemistry", vol.41, N12, Moscow, p.2186-2189, 1986.
4. **Determination of gold and silver by atomic-absorption method in the natural waters with preliminary concentration on the chelate sorbent POLYORGS XI-N** - /Shvoeva O.P., Kuchava G.P., Kubrakova I.V., Myasoedova G.V., Savvin S.B., Bannykh L.N./ In the collection of methods of concentration and definition of noble metals. Moscow, Geo-chemistry, p.31, 1986.
5. **Sorption and statement of copper-ions in the phase of sorption with the groups of benzimidazol** - /Shvoeva O.P., Kuchava G.P., Beliaeva V.K., Marov I.N., Myasoedova G.V., Savvin S.B./ J. "Inorganic chemistry", vol. 31, N11, p.2931-1938, 1986.
6. **Study of sorption and complexity of copper (II) with the groups of benzimidazol in the phase of sorbets POLYORGS XI-N** -/Shvoeva O.P., Kuchava G.P., Beliaeva V.K., Marov I.N., Myasoedova G.V./ – Theses of reports on V scientific conference about analytic chemistry of republic of Baltic. Vilnius, p.277, 1086.
7. **Quality and usage of fibrous matters filled with selected ion-changers** -/Myasoedova G.V., Shvoeva O.P., Antokol'skaia I.I, Savvin S.B., Kuchava G.P., Belova E.B./ - Theses of reports. The VI All-union conference „Ioniti-86”. Voronej, p.134-135, 1986.
8. **Use of polyarsenazo-N as sorbent for preconcentration of uranium (VI) in water analysis** - /Shvoeva O.P., Kuchava G.P., Kubrakova I.V., Myasoedova G.V., Savvin S.B., Mezhirov M.S., Boiko V.A./ - J. "Analytical Chemistry", vol.43, N8, Moscow, p.1457-1460, 1987.
9. **Preconcentration of rare earths on polyarsenazo-N as chelating sorbent** - /Shvoeva O.P., Kuchava G.P., Myasoedova G.V., Mezhirov M.S., Savvin S.B., Nikitina I.E./ - J. "Analytical Chemistry", vol.43, N11, Moscow, p.1995-1998, 1987.
10. **Indicators of the extent of surface water pollution in Transcaucasus** - /Chkhikvadze A.R., Kuchava G.P., Budayeva L.M./ - In Book "Problems of ecological monitoring and ecosystem modeling". Vol. XII, Leningrad, "Gidrometeoizdat" p.266-272, 1989.
11. **Influence of municipal sewage waters and solid waste distribution systems on the ecological situation of the cities of Georgia** - /L.Intskirveli, G.Kuchava, G.Chachibaia/.Matters of 45th May session for the 80 years Georgian Independent. Tbilisi, pp.54-58, 1998.
12. **Preliminary inventory of greenhouse gases emission sources and sinks in Georgia** - /B.Beritashvili, T.Budagashvili, G.Gunia, L.Intskirveli, G.Kuchava, J.Karchava/. Transaction of the institute of Hydrometeorology, vol.101, Tbilisi, p.165-173, 1998.
13. **Study of the pollution level and dynamics by some organic components in separate coastal areas of Black Sea allowing for anthropogenic effect in Georgia** - /N.Buachidze, L.Intskirveli, G.Kuchava/.Abstracts of papers. Oceanological reaserch centre (UNESCO), Iv.Javakhishvili Tbilisi state University. International Workshop "Geologic, Geophysics and Geochemical researches in the Black Sea". Tbilisi, December, p.94-96, 1999.
14. **Ambient air quality in Georgia** - /A.Mindorashvili, A.Budagashvili, G.Robitashvili, L.Intskirveli, G.Kuchava, M.Juruli, V.Saakadze./. National program on environment and health of Georgia. The first National conference. Ministry of Labour, Health and Social affairs; Collection works of World Health organization, Tbilisi, 28 March, p.107-129, 2001.

15. **Qualitative and quantitative estimation of contaminants in the surface waters of western Georgia** - /L.Intskirveli, G.Kuchava, G.Chachibaia, M.Meparishvili/. Transaction of the institute of Hydrometeorology, vol.104, Tbilisi, p.174-179, 2001.
16. **Emission of methane from dumps of Tbilisi and Kutaisi** - /L.Intskirveli, G.Kuchava, L.Bachiasvili/. Transaction of the institute of Hydrometeorology, vol.104, Tbilisi, p.164-173, 2001.
17. **Determination of soil contamination by heavy metals in large industrial centers of western Georgia** - /L.Intskirveli, G.Kuchava, L.Chkhikvadze/ - Transaction of the institute of Hydrometeorology, vol.104, Tbilisi, p.180-189, 2001.
18. **On the specification of GHG emission factor from the agricultural sector in Georgia** - /L.Bachiasvili, B.Beritashvili, L.Intskirveli, G.Kuchava/ - Transaction of the institute of Hydrometeorology, vol.104, Tbilisi, p.118-123, 2001.
19. **On the dynamics of greenhouse gas emissions from the territory of Georgia** -/B.Beritashvili, G.Gunia, L.Intskirveli, G.Kuchava/. In book - Problems of atmospheric boundary-layer physics and air pollution. A.I.Voeikov Main Geophysical Observatory. Hydrometeoizdat, St.Petersburg, p.296-302, 2002.
20. **Study of the biodegradation and dynamics of some organic components oil products in separate coastal areas of Black Sea of Georgia**- /Buachidze N., Lomtadze Z., Mchedlishvili M., Intskirveli L., Kuchava G., Bilashvili k./ – Oceanography of the Eastern Mediterranean and Black Sea. METU Cultural and Convention Center Ankara, TURKEY, 14-18 October, pp.670-673, 2002.
21. **Chemical-ecological Investigation of the river Mtkvari within the limits of Tbilisi** - /Buachidze N., Intskirveli L., Kuchava G., Chachibaia G./-Transaction of the institute of Hydrometeorology, vol.108, Tbilisi, pp.261-267, 2002.
22. **Research of pollution by oil products and destruction dynamics of oil contamination by microorganisms in coastal zone of Black Sea of Georgia**- /Buachidze N., Bilashvili k., Intskirveli L., Kordzakhia G., Kuchava G., Mchedlishvili M./-International Conference on scientific and policy Challenges towards an Effective Management of the Marine Environment, the Institute of Oceanology, BAS, Bulgaria, The European Commission, Belgium, The Intergovernmental Oceanographic Commission of UNESCO, Paris, France 12-18 October, 2003.
23. **Chemical-ecological research of the river Mtkvari (in the area of Tbilisi city)** - /N.Buachidze, L.Intskirveli, G.Kuchava, M.Mchedlishvili/. Soros educational journal N1, «Ecology», Tbilisi, pp.33-43, 2003.
24. **Toxic and non-toxic salts in saline and alkaline soils** -/L.Shavliashvili, G.Kuchava, L.Intskirveli, N.Tugushi/ - Transaction of the institute of Hydrometeorology, vol.111, Tbilisi, p.100-105, 2004.
25. **Influence of the saline and alkaline soils on the chemical composition of the lake Djandara** - /L.Shavliashvili, G.Kuchava, L.Intskirveli, N.Buachidze, N.Tugushi/ - Radiological and agro ecological researches, vol.1, p.253-259, 2005.
26. **Toxic action of salts into the saline and alkaline soils** - /L.Shavliashvili, G.Kuchava, L.Intskirveli, N.Tugushi/ - Radiological and agro ecological researches, vol.1, p.243-252, 2005.
27. **Estimation of Risk Factor of the Rock-Processing Enterprise on the Ecological Condition of the Small Rivers (Kazretula and Mashavera)**- /Buachidze N., Intskirveli L., Kuchava G., Bachiasvili L., Tabatadze M., Khatishvili M./ - Bulletin of the Georgian Academy of Sciences, 172, N3, p/552-554, 2005.
28. **Research of the pollution by oil products and destruction dynamics oil contamination by microorganisms in the coastal zone of the Black Sea of Georgia**- /Buachidze N., Bilashvili K., Intskirveli L., Kordzakhia G., Kuchava G., Mchedlishvili M., Tsitskishvili M./ - Problems of Ecology, v. IV, p.155-163, 2006.
29. **Dynamics of change of contents of Radionuclide in to the atmosphere on the territory of Georgia** - /L.Intskirveli, G.Kuchava, L.Bachiasvili, N.Dvalishvili/ - “Moambe” of the Georgian Academy of Sciences, 174, №1, pp.163-165, 2006.

30. **Some Aspects of Changes of the Black Sea Water Pollution in Georgia (2000 - 2008)** -/E.Bakradze, M.Arabidze, G.Kordzakhia, G.Kuchava/ 2nd Biannual and Black Sea SCENE EC Project Joint Conference, Paper Abstracts, p.8, 2008.
31. **Variation of content of quality determining components in the waters of Kura River in the territory of Georgia** - /N.Buachidze, L.Intskirveli, G.Kuchava, L.Shavliashvili/ - Presiding of the tenth Baku international congress "Energy, Ecology, Economy" p.348-352, 2009.
32. **Numerical modelling of distribution in atmosphere of a passive polluting substance emission from a hypothetical source situated in vicinities of Poti** - /A.Surmava, N.Buachidze, L.Shavliashvili, N.Beglarashvili, G.Kuchava/ - Georgian Technical University, "Sustainable development and protection of environment", p. 264-266, Tbilisi, 2010.
33. **Estimation of a modern ecological situation of a river basin of Mtkvari** - /L.intskirveli, N.Buachidze, R.Kldiashvili, G.Kuchava, M.Tabatadze, S.Mdivani/ - Georgian Technical University, "Sustainable development and protection of environment", p.328, Tbilisi, 2010.
34. **The modern condition of monitoring of the river Kura for 2007-2008** - /G.Kuchava, E.Bakradze, M.Arabidze, M.Chigitashvili/ - Georgian Technical University, №3(481), p.12-17, 2011.
35. **Some Aspects of changes of the Black Sea water Pollution** -/G.Kuchava, E.Bakradze, M.Arabidze, E.Shubladze/ - Works of hydrometeorological institute, v.116, p.97-100, Tbilisi, 2011.
36. **Consistence of toxin and nontoxic compounds into the salined and alkaline soil** - /L.Shavliashvili, G.Kuchava, L.Intskirveli, N.Tugushi/ - Works of hydrometeorological institute, v.116, p.106-109, Tbilisi, 2011.
37. **Sustainable Management of Land Resources of Georgia for the Reduction of Land** - /L.Shavliashvili, G.Kordzakhia, L.Intskirveli, N.Buachidze, G.Kuchava/ - Collected Papers, New Series №3 (82) "Environment and Global Warming", Proceeding of International Conference, Tbilisi, p.427-430, 2011.
38. **Determination of the Quality of River Kura Basin Waters Using Integral Hydrochemical Indices** - /L.Intskirveli, N.Buachidze, M.Arabidze, G.Kuchava, E.Bakradze, N.Dvalishvili, M.Tabatadze/ - Transactions of the Institute of Hydrometeorology at the Georgian Technical University, vol.117, Papers of the International Conference "Pressing Problems in Hydrometeorology and Ecology", Tbilisi, p.128-130, 2011.
39. **Hydrochemical Monitoring of the Liakhvi River** -/Buachidze, K.Bilashvili, L.Intskirveli, G.Kuchava, E.Bakradze, N.Beglarashvili, L.Shavliashvili/ - Collected Papers, New Series №3 (82) "Environment and Global Warming", Proceeding of International Conference, Tbilisi, p.330-334, 2011.
40. **Eco-Chemical Monitoring of River Liakhvi** -/G.Kuchava, L.Intskirveli, N.Buachidze, K.Bilashvili, E.Shubladze, N.Beglarashvili/ - Georgia Chemical Journal, Vol.11, № 2, Tbilisi, p.207-212, 2011.
41. **Degradation of the Georgian land resources against the background of the modern climate the changes**-/L.Shavliashvili, G.Kordzakhia, E.Elizbarashvili, G.Kuchava, N.Tugushi/ - Transactions of the institute of hydrometeorology at the Georgian Technical University, v.117, p.115-118, 2011.
42. **Role of Oil Degradation Microorganisms in Destruction of Natural Organic Compounds In The Black Sea Waters** -/N.C.Buachidze, M.Mchedlishvili, Kh.Chikviladze, L.N.Intskirveli, G.P.Kuchava, L.U.Shavliashvili/ - Collection of Works of The Petrochemical Conference Dedicated to The 100 Anniversary of academician Leonid Melikadze, Tbilisi, p.154-159, 2012.
43. **Hydrochemical investigations of the Mashavera River and their results** - /E.Bakradze, G.Kuchava, M.Arabidze, N.Buachidze, E.Shubladze/ - Georgian Engineering News №2 (62), p.106-108, 2012.
44. **The modern geochemical characteristic of the rivers of Mashavera and Poladauri taking into account anthropogenic impact** - /E.Bakradze, G.Kuchava, M.Arabidze, N.Buachidze, E.Shubladze/ - Georgian Engineering News №3 (63), p.86-90, 2012.
45. **Some Aspects of Land resources Degradation in Georgia due to Temporary Climate Change** - /L.U.Shavliashvili, G.I.Kordzakhia, E.S.Elizbarashvili, G.P.Kuchava/ - Annals of Agrarian Science. v.10, №4, p.49-51, 2012.

46. **Clinoptilolite Use in Non-Irrigated Soils of Alazani Valley** -/L.Shavliashvili,G.Kordzakhia, N.Naskidashvili, N.Tughushi, G.Kuchava, E.Bakradze/ - Georgia Chemical Journal, Vol.12, № 2, Tbilisi, p.186-188, 2012.
47. **Some Problems of Agriculture in Georgia on the Background of Modern Climate Change** - /L.Shavliashvili, G.Kordzakhia, L.Intskirveli, N.Buachidze, G.Kuchava, N.Naskidashvili/ - Transactions of the Vakhushti Bagrationi Institute of Geography New series, №4(83), p.176-183, 2012.
48. **The chemical composition of an artificial reservoir in saline soil of Alazani Valley** - /L.Shavliashvili, G.Kordzakhia, G.Kuchava, N.Buachidze, E.Bakradze, V.Talakvadze/ -Transactions of the Institute of Hydrometeorology, Georgian Technical University, v.119, p.253-256, 2013.
49. **Georgian major transboundary rivers eco-bio-chemical conditions and their classification** - /N.Buachidze, L.Intskirveli, G.Kuchava, E.Bakradze, N.Beglarashvili/- Transactions of the Institute of Hydrometeorology, Georgian Technical University, v.119,p.232-237,2013.
50. **The overall ecological status of the water quality of rivers Mashavera, Khrami and Debed-** /E.Bakradze, G.Kuchava, M.Arabidze, N.Buachidze, I.Kordzaia, L.Papachashvili/ Georgian Engineering News N3, page 38- 40, 2013.
51. **Migration of easily soluble salts in the soils of Alazani valley and their relation to climate components** - /L.Shavliashvili, G.Kordzakhia, N.Tughushi, G.Kuchava, E.Bakradze/- Transactions of the Vakhushti Bagrationi Institute of Geography New series, №5(84), p.189-193, 2013.
52. **The process salinization-desalinization of salt in seasonally in drainage and non-drainage areas of saline soils Alazani valley** - /L.Shavliashvili, G.Kordzakhia, E.Elizbarashvili, G.Kuchava, N.Tughushi, A.Giorgishvili/ - Georgian chemical Journal, v.13, №2, p.180-183, 2013.
53. **Use of Klinoptilolith in Agriculture** - /L.Shavliashvili, G.Kordzakhia, N.Naskidashvili, N.Tugushi, G.Kuchava, E.Bakradze/ - International Scientific Journal “Annals of Agrarian Science” vol.11, №3, p.36-28, 2013.
54. **Degradation of Alazani valley soils on background of modern climate change** -/L.Shavliashvili, G.Kordzakhia, E.Elizbarashvili, G.Kuchava, N.Tugushi/ - Monograph, Publishing “Universali”, 182 p., Tbilisi, 2014.
55. **Determination of Agricultural crops Productivity by Squares Method**- /L.Shavliashvili, G.Kordzakhia, E.Elizbarashvili, G.Kuchava, E.Bakradze - /Reports presented at the scientific Conference Dedicated to the 80th Anniversary of M. Nodia Institute of Geophysics. Advanced Problems in Geophysics, International Conference, Tbilisi p.125-128, 2014.
56. **Climate change impact of degradation land resources of saline soils example of Sighnaghi region** - /L.Shavliashvili, G.Kordzakhia, E.Elizbarashvili, G.Kuchava, N.Naskidashvili/ - Georgian Academy of Agricultural sciences. International scientific conference, p.262-266, 2014.
57. **Task of development of the mesoscale atmospheric process in the area of the active influence on clouds and a determination of the background concentration of heavy metals in Kakheti** - /A.Surmava, L.Intskirveli, N.Buachidze, L.Shavliashvili, G.Kuchava, M.Tabatadze/ - Transactions of the Institute of Hydrometeorology, Georgian Technical University, v.120, p.78-81, 2014.
58. **Lend resources research outputs in Georgia** - /G.Kordzakhia, L.Shavliashvili, G.kuchava/ - International Conference “Applied Ecology: Problems, innovations”; Proceedings ICAE-2015, Tbilisi-Batumi, p.96-100,2015.
59. **Study of chemical and microbiological pollution of an artificial reservoir in saline soil** -/L.Shavliashvili, G.Kordzakhia, N.Kavalashvili, G.Kuchava, E.Shubladze/ - Vakhushti Bagrationi Institute of Geography, International conference, “Modern problems of geography and anthropology” p. 286-291, 2015.

60. **The results of monitoring of heavy metals pollution in Kvirila and adjoining territory in the 2010-2015 periods** - /E.Bakradze, G.Kuchava, M.Arabidze/ - Georgian Engineering News №3 (v.75), p.65-69, 2015.
61. **Necessary activities for regeneration of saline and alkaline soils of Alazany Valley** - /L.Shavliashvili, G.Kordzakhia, G.Kuchava, E.Elizbarashvili/ - Georgian Academy of Agricultural sciences. International scientific conference "Global warming and agrobiodiversity", p.337-340, 2015.
62. **Research of soil resources degradation processes in Georgia** -/G.Kordzakhia, L.Shavliashvili, G.kuchava, N.Buachidze/ - American journal of environmental protection, Science publish group, 4(5), p.251-259, 2015.
63. **Study of contamination of Alazani Valley surface and ground waters** -/E.Bakradze, L.Shavliashvili, G.Kuchava, E.Shubladze/ - International scientific-practical conference LXIX Herzen readings Dedicated to the 115th anniversary of Stanislaw Vikentievich Kalesnik; Geography: Development of science and education, part II, p. 21-25, 2016.
64. **Chemical composition of irrigation, collector-and-drainage and ground waters of the lower Alazani Valley** - /M.Elizbarashvili, L.Shavliashvili, G.Kuchava/ - Air and Water Components of the Environment, Babes-Bolyai University. Cluj-Napoca, Romania, p.70-75, 2016.
65. **Trends of components secular changes and their possible impact on the eco-chemical characteristics of the soil (on example of Alazani valley)** - /E.Elizbarashvili, L.Shavliashvili, G.kordzakhia, G.Kuchava, M.Elizbarashvili, N.Chelidze/ - European Geographical Studies by Academic Publishing House Researcher, Russia, v.11, Is.3, p.75-82, 2016.
66. **Production of Environmentally friendly agro-food products for agricultural sustainable development** - /E.Bakradze, L.Shavliashvili, G.Kuchava, E.Shubladze/ - Georgian Academy of Agricultural Sciences, International scientific conference "Modern technologies to produce ecologically pure products for sustainable development of agriculture", Tbilisi, p.115-118, 2016.
67. **Arsenic pollution study of the rivers and soils in some of the regions of Georgia** - /L.Shavliashvili, E.Bakradze, M.Arabidze, G.Kuchava/ - International Journal of Current Research Vol. 9, Issue, 02, pp.47002-47008, February, 2017.
68. **Study of contamination of the transboundary river Kura in Georgia** - /E.Bakradze, G.Kuchava and L.Shavliashvili/ - EUROPEAN WATER RESOURCES ASSOCIATION 10th WORLD CONGRESS on Water Resources and Environment "Panta Rhei" PROCEEDINGS. Athens, 2017.
69. **Assessment of the ecological state of soil and artificial reservoirs in the Alazani valley** - /E.Bakradze, L.Shavliashvili, G.Kuchava, S.Khmiadashvili/ - Georgian Engineering News, No.1, p.115-120, 2017.
70. **The impact of saline soils on the chemical composition of artificial reservoirs** - /E.Bakradze, L.Shavliashvili, G.Kuchava, M.Arabidze/ - International Society for Engineering Research and Development (ISERD), 91st International conference, Madrid, p.1-4, 2017.
71. **Chemical Composition of Artificial Reservoirs and Saline Soils in Kakheti Region** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - Journal of Ecology and Environmental Sciences <http://www.rroij.com/open-access/chemical-composition-of-artificial-reservoirs-and-saline-soils-inkakheti-region-.php?aid=86430>, 2017.
72. **Assessment of the impact of Uncontrolled Landfill on the Ecosystems on the territory of Eastern Georgia** -/N.Buachidze, K.Chikviladze, I.Gurguliani, E.Shubladze, G.Kuchava/ - Georgian Engineering News, vol.84, №4, P. 43-53, 2017.
73. **The chemical and microbiological analysis of the uncontrolled landfill sites in Eastern Georgia and its impact on the pollution of the surrounding areas** - /N.Buachidze, Kh.Chikviladze, G.Kuchava, E.Shubladze - International Journal of waste resources, vol.7, №4, p.22-23, 2017.

74. **Content of the several heavy metals of Kakheti region soil and surface waters** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - International scientific conference in Geography-“Geography in global context: Achievements and Challenges”-Kutaisi, p.119-126, 2018.
75. **Results of 2017 monitoring of atmospheric air pollution in Tbilisi, Georgia** - /E.Bakradze, G.Kuchava, M.Arabidze, I.khomeriki, Q.Kvatashidze/ - International Journal of Modern Research in Engineering & Management (IJMREM), Vol. 1, Issue 6, p. 53-59, 2018.
76. **The chemical and microbiological analysis of the uncontrolled landfill sites in Georgia and its impact on the pollution of the surrounding areas** - /N.Buachidze, Kh.Chikviladze, G.Kuchava, E.Shubladze/ - Journal of Environmental Research, vol.2, page 51– Rom, Italy, (ISSN: 0013-9351, Impact Factor: 4.732), 2018.
77. **Phiziko-chemical, hydrochemical and microbiological characteristics of the existing rivers in the vicinity of Bolnisi Madneuli enterprise** - /E.M. Bakradze, L.U. Shavliashvili, G.P.Kuchava/ - International scientific-practical conference LXXII Herzen readings; Geography: Development of science and education, part II, Sankt Petersburg, p. 32-37, 2019.
78. **Impact of uncontrolled landfills on ecosystems of Georgia** - /N.Buachidze, Kh.Chikviladze, E.Shubladze, G.Kuchava/ - J. “Annals of Agrarian Science” (ISSN:1512-1887), 2019.
79. **Characterization of ecological condition of rivers, artesian waters and soils near Bolnisi Madneuli enterprise** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - International Scientific Conference “Actual Problems of Landscape; Sciences: environment, society, politics; 9 -13 September, Tbilisi, Georgia, 2019.
80. **The impact of Some Uncontrolled Landfill Sites on the Ecosystems of Surrounding Areas of Eastern and Western Parts of Georgia** - /N.Buachidze, Kh.Chikviladze, G.Kuchava, E.Shubladze, G.Kordzakhia/ - Open Journal of Ecology, 2019, vol.9, N2, p.25-33 /Scientific Research Publishing. ISSN Online: 2162-1993 ISSN Print: 2162-1985 <http://www.scirp.org/journal/oje>
81. **Change of Heavy Metal Concentration in Surface Waters and Soils of East Georgia Considering the Anthropogenic Impact** - /L.Shavliashvili, L.Intskirveli, E.Bakradze, G.Kuchava, N.Buachidze, S.Mdivani/ - International Scientific Conference “Natural Disasters in Georgia: Monitoring, Prevention, Mitigation”, Tbilisi, Georgia. 12–14 December, pp.130-133, 2019.
82. **Pollution of environment by heavy metals by Madneuli Plant** - /E.Bakradze, L.Shavliashvili, G.Kuchava, T.Mchedluri / - Journal of Advanced Research in Dynamical and Control Systems, vol. 12, pp. 2586-2596, 2020. DOI: 10.5373/JARDCS/V12SP7/20202393; <https://www.jardcs.org/>
83. **Eco-chemical study of natural water and soil pollutants in the vicinity of the Madneuli plant** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - "Actual problems of ecology and soil science in the XXI century" VI Republican Scientific Conference, Baku, Azerbaijan, pp. 116-120, 2020.
84. **Study of heavy metal pollution of natural waters of Bolnisi Municipality and Maintaining their biodiversity** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - Georgian Academy of Agricultural Sciences, Scientific Conference "Climate Change and Georgia's Agrobiodiversity", pp.18-24, 2020. <http://www.gaas.dsl.ge/>
85. **The impact of the Madneuli enterprise on the pollution of natural waters** - /E.Bakradze, L.Shavliashvili G.Kuchava, S.Khmiadashvili/ - International Conference “scientific Enquiry in the Contemporary World: Theoretical Basics and Innovative Approach, 15th edition, San Francisco, California, USA, August 20, 2020. DOI: http://doi.org/10.15350/L_26/15
86. **Chemical study of arsenic content in soils of Ambrolauri municipality** - /L.Shavliashvili, M.Arabidze, E.Bakradze, G.Kuchava, M.Tabatadze/ - Transactions of the Institute of Hydrometeorology, Georgian Technical University, v.129, pp.84-90, 2020. ISSN 1512-0902.

87. **Contamination of soils by arsenic in Ambrolauri municipality and its impact on the health of the population**-/L.Shavliashvili, M.Arabidze, E.Bakradze, G.Kuchava, G.Kordzakhia/-European Geographical Studies, 7(1): p.48-56. DOI: 10.13187/egs. 2020.
https://egs.cherkasgu.press/journals_n/1568892121.pdf
88. **Ecological Situation in the World and in Georgia During and After the Pandemic** -/E.Bakradze, L.Shavliashvili, G.Kuchava, M.Arabidze, N.Buachidze, G.Kordzakhia/ - International Online Conference "Compounds and Materials with Specific Properties", July 10-11, 2020. ISBN: 78-9941-13-939-0.
89. **Pollution of Kvemo Kartli region (Georgia) soils by heavy metals** - /L.Shavliashvili, E.Bakradze, E.Elizbarashvili, E.Shubladze, G.Kuchava/ -, "European Geographical studies", international scientific Journal, E-ISSN 2413-7197, DOI: 10.13187/egs.2021.1.55 2021,8(1), pp.55-62.
https://egs.cherkasgu.press/journals_n/1643990340.pdf
90. **IMPACT OF ARSENIC EX-MINING WASTE ON THE SURROUNDING SOIL DEGRADATION PROCESSES IN RACHA** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - HUMINO CONGRESS-Online International Conference Hosted from Paris, France, August 21st -22nd, pp.1-6, 2021. <https://conferencious.com>
91. **DETERMINATION THE WATER QUALITY CLASSIFICATION OF THE RIVER KHRAMI AND ITS TRIBUTARIES** - /N.Buachidze, L.Shavliashvili, E.Bakradze, G.Kuchava/ - International Conference On Development of Applied Science and Humanities - Timisoara, Romania, October 26th -27th, pp.8-15, 2021. <https://conferencious.com>
92. **HEAVY METAL POLLUTION OF THE RIVER KAZRETULA BY THE MADNEULI ENTERPRISE AND RESTORATION OF ITS BIODIVERSITY** - /E.Bakradze L.Shavliashvili, G.Kuchava N.Buachidze, E.Shubladze/ - Collection of articles on the materials of Scientific-Practical Conference LXXIV Herzen readings 21-23 April, pp.12-18, Sankt Petersburg, 2021. ISBN 978-5-8064-3043-5 (общий)
93. **THE MODERN STATE OF POLLUTION OF THE RIVER KAZRETULA BY MADNEULI ENTERPRISE** - /E.Bakradze, L.Shavliashvili, G.Kuchava/ - J. Georgian Chemical Society, Vol. 1, pp. 59-64, 2021. ISSN 1512-0686 www.chemistry.ge/publication/JGCS
94. **Alternative innovative technology to Reduce Fuel emissions in ambient air** - /E.Bakradze, N.Buachidze L.Shavliashvili, G.Kuchava/ - Proceedings of 7th Global Congress on Contemporary Sciences. June, 25th, New York, USA, pp.77-82, 2021. <https://econferenceglobe.com>
95. **Assessment of the quality of pollution in Kvemo Kartli region (Georgia) soils** - /Lali U. Shavliashvili, Elina M. Bakradze, Gulchina P. Kuchava, Ekaterina Sh. Shubladze/- International scientific and practical conference CUTTING EDGE-SCIENCE 2022 Shawnee, USA Conference Proceedings Primedia E-launch Shawnee, USA, pp.83-90, 2022. ISBN 978-1-64945-234-4 DOI: 10.5281/zenodo.6417319 <file:///C:/Users/HP/Downloads/USA%202022%202.pdf>
96. **Determining the water quality classification of some rivers of Kvemo Kartli according to hydrochemical indicators** - /N.Buachidze, L.Shavliashvili, E.Bakradze, G.Kuchava/ - Transactions of the Institute of Hydrometeorology, Georgian Technical University, v.132, pp.54-60, 2022.
97. **Ecobiochemical condition of the main rivers of Eastern Georgia and their classification according to hydrochemical indicators** - Buachidze N.S., Shavliashvili L.U., Bakradze E.M., Kuchava G.P., Kordzakhia G.I. - Proceedings of the International Scientific Conference "Modern Problems of Ecology", Volume VIII, ISSN 1512-1976, the conference is dedicated to the former president of the Georgian Academy of Ecological Sciences, Mr. Marat Tsitskishvili, Batumi, Georgia, October 16-17, pp.31-39, 2022.
98. **Pollution of the soils of the urban region of Georgia** - L. Shavliashvili, E. Bakradze, G. Kordzakhia, G. Kuchava - Proceedings of the International Scientific Conference "Modern Problems of Ecology", Volume VIII, ISSN 1512-1976, the conference is dedicated to the former president of the Georgian

- Academy of Ecological Sciences, Mr. Marat Tsitskishvili, Batumi, Georgia, October 16-17, pp. 299-306, 2022.
99. **Study of hydrochemical and microbiological composition of natural waters of Racha-Lechkhumi and Kvemo Svaneti region** - L. Shavliashvili, G. Kuchava, E. Shubladze, M. Tabatadze - International Conference of Young Scientists "Modern Problems of Earth Science" TSU, STU, Geophysics and Hydrometeorology Institutes, ISBN 978-9941-36-044-2, p. November 21-22, 2022.
 100. **Stade of Arsenic contamination of natural waters and soils of Racha-Lechshumi and Kvemo Svaneti region** – L.Shavliashvili, G.Kuchava, M.Tabatadze, E.Shubladze – International Conference on Developments in education 5th December, Canada, Toronto, pp.62-70, 2022 <https://doi.org/10.5281/zenodo.7488311>
 101. **Pollutants of anthropogenic origin in Bolnisi municipality and new environmental policy** - L. Shavliashvili, E. Bakradze, G. Kordzakhia, G. Kuchava – Journal of "Science and Technologies", N3 (740), pp. 39-53, 2022.
 102. **Study of arsenic contamination of soils of Ambrolauri municipality** - /L.Shavliashvili, G.Kuchava, E.Shubladze, M.Tabatadze/ - Transactions IHM, GTU, vol.133, pp.100-105, 2023.
 103. **Study of the pollution of the ecosystems of Kvemo Kartli and its impact on the safety of food products** - L. Shavliashvili, G. Kuchava, G. Kordzakhia, N. Buachidze - monograph, "Universal", 300 p., 2023.
 104. **Arsenic contamination of natural waters of Racha-Lechkhumi and Kvemo Svaneti region of Georgia**- M. Tabatadze, L. Shavliashvili, G. Kuchava, E. Shubladze, N.Buachidze - International Conference Organized by World Research forum for Engineers and Reserchers, Barselona, Spain, 23-24.09. pp.5-8, 2023. ISBN:978-93-90150-28-1, Edn:464
 105. **Arsenic contamination in soils of Racha-Lechkhumi and Kvemo Svaneti region of Georgia** - L.Shavliashvili, G.Kuchava, E. Shubladze, M.Tabatadze, N.Buachidze - International Conference Organized by World Research forum for Engineers and Reserchers, Barselona, Spain, 23-24.09. 2023 pp.9-13, ISBN:978-93-90150-28-1, Edn:464
 106. **Research of arsenic-contaminated areas of Racha-Lechkhumi and Kvemo Svaneti region of Georgia and assessment of environmental impact risks** - L.Shavliashvili, M.Tabatadze, G.Kuchava, E.Shubladze, G.Dumbadze -International Symposium in soil Knowledge and Plant Nutrition. December 8-9, Turkey, 2023.
 107. **Study of hydrochemical composition of natural waters of Racha-Lechkhumi and Kvemo Svaneti region in 2023** - L.Shavliashvili, G.Kuchava, E.Shubladze, M.Tabatadze, N.Buachidze - International Scientific Conference "Geophysical Processes in the Earth and its Envelopes", Transactions, pp.105-112, Tbilisi, Georgia, November 16-17, 2023.