

## List of scientific works Medea Tserodze

1. Tserodze M.P. Method for analyzing nitroglycerin in methanol, physiological solution and in human blood plasma Tbilisi, Abstracts of reports. Rep. conf. young chemists. 1985.
2. . Tserodze M.P., N. Surmava. Development of the polarography method analysis of certain cardiovascular drugs in blood plasma human Sukhumi, Abstracts. Rep.conf. young chemists. 1987.
3. T.Chelidze, M.tserodze, J.Japaridze. The Method of Cardio stimulate Perpetrate analysis in Hyman Blood Plasma. Proc. 2-ed Beijing Conf. and Exhib. on Instrum. Analysis, Pekin, 1987, p.1291-1292.
4. Tserodze M.P. Development of methods for analyzing some cardiac vascular drugs. Tbilisi, Conk. Rep. Society named after D.I. Mendeleev, 1987.
5. T.R. Chelidze, J.I. Japari-dze, G.E. Chapidze Tserodze M.P. Polarography analysis of nitroglycerin in human blood plasma. Communications of the ANGSSR, vol. 129, No. 2, 1988.
6. T.R.Chelidze, J.I.Japari-dze, G.E.Cchapidze Tserodze M.P. Polarography determination of Molsidomin (Corvaton) in plasma human blood. "Medicine", M. Chemical Pharmaceutical Journalal, No. 12, 1990.
7. T.Chelidze, J.Japaridze, N.Abuladze. M.Tserodze. The Polaroghrapic Methodes of Analysis of Medical Preparates-Molsidomine (Corvaton) and Erynite Praga, J. Heyrovski Centennial Congress of Polarography,1990.
8. N.T.Loladze, Tserodze M.P. Yu.G. Dzidzishvili and others. Development scientific foundations in effective technology for the synthesis of large high-quality single crystals of diamond and stone processing tools based on them. Research report from No. 32, GTU, 2000.
9. N.Loladze, M. Tserodze and oth. Some Physical and Chemical "Aspects of Diamond Crystallization. Novel Materials, Supplementary Editions of the GEN. 2006, p.94-98

10. N.T.Loladze. M.P.Tserodze, Yu.G.Dzidzishvili, G.I.Grdzelishvili. The influence of thermodynamic parameters of the hot pressing process on the properties of sintered metal compositions. Georgian Engineering News 1'06, #1. 2006, გ3.108-112.
11. N.T.Loladze, M.P. Tserodze, Sh.P. Tserodze, Yu.G.Dzidzishvili. New design of a high-pressure cell for the synthesis of diamonds with improved temperature ion. Georgian Engineering News 2'06, #2. 2006, გ3. 277-281.
12. N.Loladze, M. Tserodze, J. Khantadze, G. Meladze. The Influence of the Physical and Chemical Properties of Metal Catalysts on the Diamond Formation Process. Bulletin of the Geogian Academy of Sciences, v.173, #3, 2006. გ3..510-512.
13. V.P. Polyakov, A.N. Varenkov, N.T.Loladze, A.A. Potemkin. Laboratory workshop "Processes of obtaining diamonds and tools based on them." Moscow, MISiS,1983,77 p.
14. N.T.Loladze, M.P.Tserodze, Yu.G.Dzidzishvili et al. Development of scientific foundations in effective technology for the synthesis of large high-quality diamond single crystals and stone-processing tools based on them. Research report from No. 32, GTU, 2000, 67 p.
15. N.Loladze, М.П.Церодзе, Ю.Г.Дзидзишвили, I.Berdzenishvili. The Influence of the Dissolution Kinetics of Various Forms of Carbon in Ni- Mn Melts on the Diamond Formation Process. GEN, №2, 2007, c.63-67.
16. N.T.Loladze, M.P.Tserodze, S.I.Zaslavsky. News of the National Academy of Sciences of Georgia, Chemical series, vol. 33, #3, 2007, pp. 291-296.
17. 24. N.T.Loladze, M.P.Tserodze, Yu.G.Dzidzishvili. On the crystallization of diamonds of different habit in the Me-C system. Encyclopedia-Armenica", Yerevan Information Technologies and Management, No. 8, 2008, pp. 95-101.
18. 25. N.T.Loladze, M.P.Tserodze, Yu.G.Dzidzishvili and others. The influence of some geometric parameters on the performance of diamond tubular drills. Encyclopedia-Armenica",Yerevan Information Technologies and Management, No.8,2008,p102-107.
19. 26. N. T. Loladze, M. P. Tserodze, S. I. Zaslavsky, etc. On the possibility of using various carbon materials as a solid reducing agent for iron oxides in the process of electric contact heating. // GEN, No. 2, 2008, p. 82 -84.

20. N. T. Loladze, M. P. Tserodze, etc. On the role of the structure of the carbon material used as a reducing agent in the direct reduction of iron ore to metallic iron. // News of the National Academy of Sciences of Georgia, Chemical series, v.34,#2,2008, pp.225-228.
21. 28. N. T. Loladze, M. P. Tserodze, S. I. Zaslavsky. The influence of the nanostructure of the original carbon on the boundary thermodynamic conditions of diamond formation in the Me-C system // News of the National Academy of Sciences of Georgia, Chemical series, v. 35, #1, 2009, pp. 60-62
22. N.T.Loladze, M.P.Tserodze and other. Kinetics of interaction of carbonaceous material with iron oxide under thermobaric conditions. Herald of the National Academy of Georgia v.35, #2, 2009, pp. 186-188.
23. N.T.Loladze, M.P.Tserodze. Some aspects of mass crystallization of diamond in the Me-C system // Reports of the XII Int. Conf. "Rock cutting metalworking tools – technology, technology of its manufacture and application" NAS of Ukraine, ISM, 2009, pp. 87-96.
24. N.T. Loladze. Diamonds and other carbon materials. monograph, "Technical University", Tbilisi, 330 pp. 2009.
25. N. T. Loladze, M. P. Tserodze. Physic chemistry and Technology of Diamond Synthesis in the Me-S System, monograph,"Technical University",Tbilisi,2009,278 pp.
26. 33. N. T. Loladze, M. P. Tserodze. Yu.G. Dzidzishvili. Physico-Chemical Fundamentals of the Production and Application of Diamond Composite Materials for the Processing of Non-Metals. monograph,"Technical University",Tbilisi,2009,226 pp.
27. M. Tserodze, N. Loladze. Laboratory practice in physical chemistry. "Technical University" Tbilisi, 2009, 119 p.
28. Loladze N. T. and Tserodze M. P. //On the effect of a metal melt surface properties on the diamond formation process in the Me-C system // Journal of Superhard Materials № 2, 2010, pp.60-68.
29. 36. Loladze N.T., Butskhrikidze D.S. and Tserodze M.P., // Study of the relationship between the geometric properties of diamond grinding powders and the operational properties of grinding wheels // Rock-cutting metalworking tools - equipment,

technology of its manufacture and application, Collection of scientific papers, Issue 13, Kiev, Institute of Superhard Materials. V.N.BakulyaNAS of Ukraine, 2010, pp.87-96.

30. Loladze N.T., Tserodze M.P., Dzidzishvili Yu.G., Avalishvili Z.A. Study of the relationship between the performance and durability of diamond drills from various factors. //Collection of scientific papers, Rock cutting and metalworking tools - equipment and technology of its manufacture and application, international conference September 18-24, issue 14, "Logos", Kyiv, 2011, p. 537-541.
31. Loladze N.T., Tserodze M.P., Dzidzishvili Yu.G., Zaslavsky S.I., Avalishvili Z.A. Some methods for increasing the efficiency of the hot pressing process in the production of diamond composite materials. // Collection of scientific papers, Innovative technologies and materials, international scientific conference dedicated to the memory of academician T.N. Loladze October 24-2, "Technical University", Tbilisi, 2011, pp. 201-208.
32. Loladze N.T., Polyakov V.P., Tserodze M.P., Zaslavsky S.I. Physical aspects of obtaining some diamond composite materials. //News of the National Academy of Sciences of Georgia, Chemical series, vol. 38, #1, 2012, pp. 49-53.
33. Loladze N.T., Tserodze M.P., Dzidzishvili Yu.G., Zaslavsky S.I. On the possibilities of improving the technological process of hot pressing during sintering of superhard materials. //Collection of scientific papers, Rock cutting and metalworking tools - equipment and technology of its manufacture and application, international conference September 24-30, issue 15, "Logos", Kyiv, 2012, p. 537-541.
34. Loladze N.T., Kutelia E.Z. Tserodze M.P., Maisuradze N.I., Dzidzishvili Yu.G., Zaslavsky S.I. On the possibility of obtaining synthetic diamonds with predetermined properties during spontaneous crystallization // News of the National Academy of Sciences of Georgia, Chemical series, vol. 40, #1, 2014, pp. 50-54.
35. Loladze N.T., Tserodze Sh.P., Tserodze M.P., Dzidzishvili Yu.G., Avalishvili Z.A., Sulaberidze Z.G. Cell design of high-pressure chambers for sintering diamond composite materials. GEN, No. 2, 2014, pp. 73-76.
36. Avalishvili Z.A., Tserodze M.P., Dzidzishvili Yu.G., Loladze N.T. Study of the influence of P-T parameters of hot pressing on the hardness of alloys of the Co-Cu-Sn, Cu-Sn and

Cu-Sn systems –Ni used as binders of diamond composite material. GEN, No. 4, 2014, pp. 35-38.

37. Z. Avalishvili. Sh. Tserodze, M. Tserodze, I. Dzidzishvili, N. Loladze. The influence of some physical-mechanical parameters of diamond composite materials on the efficiency of the technological process of diamond processing // Bulletin of the National Academy of Sciences of Georgia, vol.75, #3, 2015, p.55-58.
38. Avalishvili Z.A., Tserodze M.P., Loladze N.T. The influence of some physical and mechanical properties of the metal binder on the efficiency of diamond tools. //European research: Innovation in science, Education and Technology. XI International scientific and practical conference, Moscow, 23-25 December 2015, Publishing house "Problems of Science", 10(11), 2015.pp.46-54.
39. N. Loladze M. Tserodze, T. Pkhaladze. Study of kinetics of graphite→diamond catalytic conversion.// GEN, №2, 2017, ctp.50-54. 47
40. N. Loladze, M. Tserodze. "Physico-chemical aspects of diamond synthesis in the Me-C system". Monograph, "Technical University", Tbilisi, 2017, 218 p.
41. M.P.Tserodze, Z.A.Avalishvili, T.B.Pkhaladze, S.I., Zaslavsky, N.T.Loladze. Study of the kinetics of soot structure formation under high pressure and temperature conditions in the light of the possibility of diamond formation. //News of the National Academy of Sciences of Georgia, Chemical series, vol. 43, #3-4, 2017, pp. 326-328.
42. Loladze N.T., Tserodze M.P., Gabunia V.M., Pkhaladze T.B., Avalishvili Z.A. Study of structural transformations in some carbon materials at high temperatures. // GEN, No. 4, 2017, 83.31-34.
43. N.Andguladze, A.Sarukhanishvili, V.Gordeladze., M.Tserodze, L.Ebanoidze. Physical Chemistry. Exam Tests, ed. Technical University", Tbilisi, 2017, 52p.
44. N. Loladze, M. Tserodze, Z. Avalishvili. "Non-metallic materials" Tbilisi, "Technical University" 2018, 191 p.
45. N. Loladze, M. Tserodze, Z. Avalishvili, "Laboratory practice in non-metallic materials"

Tbilisi, Technical University, 2018, 98 p.

46. N. Loladze, M. Tserodze, Z. Avalishvili. Some aspects of artificial diamond nucleation in the Me-C system //STU, "Chemistry achievements and perspectives" international scientific method conference dedicated to G. Tsintsadze's 85th birthday. Tbilisi, "Technical University" 2019.
47. Loladze N.T., Tserodze M.P., Avalishvili Z.A., Zaslavski S.I. The influence of high pressures and temperatures on the structural transformations of soot in the presence of a Ni – Mn melt // Georgian Engenering News, 2019, p. 96-98.
48. N. Loladze, M. Tserodze, Z. Avalishvili, I. Dzidzishvili, D. Nozadze. Some technological aspects of making diamond composite material // Georgian Engineering News, 2019, p. 99-103.
49. N. Loladze, M. Tserodze, Z. Avalishvili, I. Dzidzishvili, D. Nozadze. Metal matrix of diamond composite material using alloy powders //Georgian Engineering News, #1, 2020, p.71-75.
50. Nikoloz Loladze, David Tavxelidze, Medea Tserodze, Zurab Avalishvili. Some Methods of Increasing the Hot-Pressing Process Eefficiency in Production of Diamond Composite Materials. // Bulletin of the Georgian Academy of Sciences, v.15, #1, 2021. (იმუ-ფაქტ.)
51. N.T. Loladze, M.P. Tserodze, Z.A. Avalishvili, and Iu.G. Dzidzishvili1. FEATURES OF THE SINTERING OF Fe–Cu–Sn–Ni AND Cu–Ti–Sn–Ni POWDERS DURING HOT PRESSING. // DOI 10.1007/s11106-021-00250-0; Powder Metallurgy and Metal Ceramics, Vol. 60, Nos. 5-6, September, 2021 (Russian Original Vol. 60, Nos. 5-6, May-June, 2021)
52. N.Loladze, M.Tserodze, Z.Avalishvili, I.Dzidzishvili. The effect of particle size and morphology on the sinter ability of Fe-Cu-Sn-Ni composites made by powder metallurgy. Recent Scientific Investigation, XXIV International Multidisciplinary Conference. Shawnee, USA, September, p.27-35, 2021. DOI: 10.32743/USA Conf. 2021.9.24.299682
53. N.Loladze, M.Tserodze, Z.Avalishvili, I.Dzidzishvili. The Influence Initial Iron Powder Particles Properties on the Fe –Cu – Sn –Ni Composition Pressing Sintering Kinetics. Recent Scientific Investigation, XIII International Multidisciplinary Conference

"Innovations and Tendencies of State-of-Art Science", Rotterdam, Netherlands, November, p.82-90, 2021. DOI: 10.32743/NetherlandsConf.2021.11.13.310072

54. M. Tserodze, Z. Avalishvili, N. Kenchiashvili, M. Tabatadze, N. Loladze. Study of the kinetics of the process of reducing iron oxides with carbon under high pressure conditions//International scientific conference dedicated to the 90th anniversary of the birth of academician Givi Tsintsadze. Proceedings of the conference "Chemistry - achievements and perspectives", Tbilisi, Stu, April 12-14, 2023. Theses, 168-173 p.
55. A.Kvedelidze, M.Tabatadze, Z.Avalishvili, M.Tserodze, N.Loladze Effect of Tin content on the Hardness and Sstructure of the Cu-Sn Alloy at Different Sintering P - T -  $\tau$  Parameters". // XXXIV International Multidisciplinary Conference "Prospects and Key Tendencies of Science in Contemporary World". Spain, 28.08.2023. ISBN 978-84-685-5375-7

#### Patents

56. Tserodze M.P., T.R. Chelidze, J.I. Japari-dze, G.E. Chapidze Method quantitative determination of nitric acid ester – Erinit. Copyright certificate No. 1491163.
57. N. Loladze, M. Tserodze, Z. Avalishvili. Gtu, GNSF. "Metal fastener for diamond tools" AU 2022 16092 (No. 191/2 2024-01-11).