

List of scientific works Zurab Avalishvili

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.

7. N. Loladze M. Tserodze, T. Pkhaladze. Study of kinetics of graphite→diamond catalytic conversion.// GEN, №2, 2017, crp.50-54. 47
8. N. Loladze, M. Tserodze. "Physico-chemical aspects of diamond synthesis in the Me-C system". Monograph, "Technical University", Tbilisi, 2017, 218 p.
9. 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.
10. 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, გვ.31-34.
11. N. Loladze, M. Tserodze, Z. Avalishvili. "Non-metallic materials" Tbilisi, ``Technical University" 2018, 191 p.
12. N. Loladze, M. Tserodze, Z. Avalishvili, "Laboratory practice in non-metallic materials" Tbilisi, Technical University, 2018, 98 p.
13. 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.
14. 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.
15. 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.

16. 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.
17. Nikoloz Loladze, David Tavxelidze, Medea Tserodze, Zurab Avalishvili. Some Methods of Increasing the Hot-Pressing Process Efficiency in Production of Diamond Composite Materials. // Bulletin of the Georgian Academy of Sciences, v.15, #1, 2021. (ომგ-ფსკბ.)
18. N.T. Loladze, M.P. Tserodze, Z.A. Avalishvili, and Iu.G. Dzidzishvili. 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)
19. 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
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21. 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.

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Patents

23. N. Loladze, M. Tserodze, Z. Avalishvili. Gtu, GNSF. "Metal fastener for diamond tools" AU 2022 16092 (No. 191/2 2024-01-11).