



**Nino Popkhadze**

**Position**

Al. Janelidze Institute of Geology of Iv. Javakhishvili Tbilisi State University, Department of Mineral resources and Geochemistry. Senior Scientist.

**Scientific/academic degree, title**

Academic doctor of geology / PhD (2014). PhD thesis - "New volcano-sedimentary constrains for the geological environment of the host rocks of the Madneuli deposit, Bolnisi district, Georgia".

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**Education**

1983-1988 – Iv. Javakhishvili Tbilisi State University, Faculty of Geography and Geology. Engineer-Geologist.

2011-2014 – Ivane Javakhishvili Tbilisi State University Faculty of Exact and Natural sciences, PhD doctoral program – Geology; Academic doctor degree in Geology/PhD.

**Employment history**

2018-present – Senior Scientist of the Department of Mineral Deposits and Geochemistry of the Alexandre Janelidze Institute of Geology of Ivane Javakhishvili Tbilisi State University.

2015-Present – Faculty of Natural Sciences and Engineering of Ilia State University. Invited lecturer. Direction of geology, educational course - volcanology, master's program.

2015-2018 – Scientist of the Department of Mineral Deposits and Geochemistry of the Alexandre Janelidze Institute of Geology of Ivane Javakhishvili Tbilisi State University.

2015-2017 – Iv.Javakhishvili Tbilisi State University, Faculty of Natural and Exact Sciences, Department of Geology, Invited lecturer. Lecture course in Sedimentology, MSc program.

2013-2015 – Scientist of the Department of Petrology, Volcanology, Mineralogy and Lithology of Al.Janelidze Institute of Geology.

1992-2013 – Junior Scientist of the Department of Volcanology and Sedimentology of Al. Janelidze Institute of Geology.

### **Research Interests**

Volcanology, petrography, altered volcanic and volcano-sedimentary rocks, paleovolcanological reconstructions, distinguishing types of ignimbrite rocks and ignimbrite pyroclastic flow reconstruction, geological mapping, geology of volcanogenic ore deposits, ore deposits host rocks lithology and their 3D modeling, the establishment of a structural lithological control on ore deposits, lithological description of core sample, reservoir and petroleum source rock petrography in petroleum geology.

### **Publications**

1. *Moritz R., Popkhadze N., Hassig M., Golay T., Lavoie J., Gugushvili V., Ulianov A., Ovtcharova M., Grosjean M., Chiaradia M., Dumitrica P.* (2020). At the crossroads of the Lesser Caucasus and the Eastern Pontides: Late to Early Eocene magmatic and geodynamic evolution of the Bolnisi district, Georgia. *Lithos*-105872, pp. 378-379.  
<https://doi.org/10.1016/j.lithos.2020.105872>
2. *Hassig M., Moritz R., Ulianov A., Popkhadze N., Galoyan G., Erukidze O.* (2020) Jurassic to Cenozoic magmatic and geodynamic evolution of the Eastern Pontides and Caucasus Belts, and their relationship with the Eastern Black Sea basin opening. *Tectonics*, September 2020/ Volume 39, Issue 10.  
<https://doi.org/10.1029/2020TC006336>
3. *Kekelia S., Kekelia M., Asatiani G., Gagnidze N., Mshvenieradze I., Lobzhanidze K., Popkhadze N., Kharazishvili G.* (2020). Gold-quartz-low sulfide mineralization and gold potential of the Southern slope of the Greater Caucasus (within Georgia). *Proceedings of the Al. Janelidze Institute of Geology. New series. Vol. 132*, pp. 66-78 (in Georgian).
4. *Kekelia S., Kekelia M., Asatiani G., Gagnidze N., Mshvenieradze I., Lobzhanidze K., Popkhadze N., Kharazishvili G.* (2020). The prospective model for gold-quartz-low sulfide mineralization (Southern slope of the Greater Caucasus, Georgia). *Proceedings of the Al. Janelidze Institute of Geology. New series. Part 132*, pp. 78-80 (in Georgian).
5. *Popkhadze N., Corbett G., Conliffe J., Royall J., Cheghorn S., Chokhonelidze M., Davies J., Hampton R., Newman J., Gelashvili L., Khmaladze K., Tedliashvili T., Moritz R.* (2019). Geological setting and lithological controls of breccia-hosted Cu-Au ore at the Cretaceous Kvemo Bolnisi prospect, Bolnisi, Lesser Caucasus, Georgia. *Proceedings of the 15th SGA Biennial Meeting: Life with ore deposits on Earth, v.3*: p. 1097-1100.
6. *Kekelia S., Kekelia M., Gagnidze N., Popkhadze N., Mshvenieradze I., Lobzhanidze K., Kharazishvili G.* (2017). Svaneti Gold Occurrence (Kirar-Abakuri Ore Knot). *Bulletin of Georgian National Academy of Sciences*, vol. 11, #2, p. 60-68.

7. **Popkhadze N., Moritz R., Natsvlisvili M., Bitsadze N.** (2017). First evidence of phreatomagmatic breccia at the Madneuli polymetallic deposit, Bolnisi district, Lesser Caucasus, Georgia. 14th SGA Biennial Meeting: Mineral resources to discovery, Quebec City, Canada. Proceedings, v.3, p. 323-326.
8. **Kekelia S., Kekelia M., Popkhadze N., Mshvenieradze I., Gagnidze N., Asatiani G., Lobzhanidze K.** (2017). Geological setting and genetic model of the Zopkhito prospect (Southern slope of the Greater Caucasus, Georgia). Bulletin of Georgian National Acad. of Sci. Vol. 11, no. 4, p. 60-65.
9. **Moritz R., Rezeau H., Mederer J., Gialli S., Hemon P., Lavoie J., Calder M., Hovakimyan S., Melkonyan R., Tayan R., Popkhadze N., Gugushvili V., Ramazanov V.** (2017). Gold deposits of the Lesser Caucasus: products of the successive Mesozoic and Cenozoic geodynamic settings. 14th SGA Biennial Meeting: Mineral resources to discovery, Quebec City, Canada. Proceedings, v.1, p. 67-70.
10. **Kekelia S., Kekelia M., Popkhadze N., Gagnidze N.** (2017). The volcanogenic deposits of non-ferrous metals of the paleoisland arc environment associated with wall rock alterations of host rocks and problems of ore genesis (on the example of ore districts in Georgia, Armenia and Turkey). Visnic - The Taras Shevchenko National University of Kiev, p. 46-52.
11. **Moritz R., Melkonyan R., Selby D., Popkhadze N., Gugushvili V., Tayen R., Ramazanov V.** (2016). Metallogeny of the Lesser Caucasus: from arc construction to post collision evolution. In book: Society of Economic Geologist, Inc. Special publication 19, Chapter 6, p. 157-192.
12. **Okrostsvaridze A., Elashvili M., Popkhadze N., Kirkitadze G.** (2016). New data on the Geological Structure of the Vardzia Cave City, Georgia. Bulletin of Georgian National Acad. Sci. Vol. 10, # 3, p. 98-105.
13. **Okrostsvaridze A., Popkhadze N., Bluashvili D., Chang Y., Skhirtladze I.** (2016). Pliocene-Quaternary Samtskhe-Javakheti Volcanic Highland, Lesser Caucasus - as a result of mantle plume activity. IGCP 610 Fourth plenary conference and field trip. Proceedings, p. 127-130.
14. **Kekelia S., Kekelia M., Gagnidze N., Popkhadze N., Lobzhanidze K., Kharazishvili G.** (2016). Gold Potential of Georgia. Bulletin of Georgian National Acad. Sci., vol. 10, no. 4, p. 41-48.
15. **Popkhadze N., Moritz R., Gialli S., Gugushvili V.** (2015). Evidence of shallow-marine depositional environment of the host rocks of the Madneuli Polymetallic Deposit, Bolnisi district, Lesser Caucasus, Georgia. 13th SGA Biennial Meeting: Mineral resources in sustainable world. Proceedings, v. 5 p. 2083-2086.
16. **Popkhadze N., Moritz R., Gugushvili V.** (2014). Architecture of Upper Cretaceous rhyodacitic hyaloclastite at the polymetallic Madneuli deposit, Lesser Caucasus, Georgia. Central European Journal of Geosciences, 6(3), p. 308-329.
16. **Popkhadze N., Moritz R., Gialli S., Beridze T., Gugushvili V., Khutsishvili S.** (2013). Major volcano-sedimentary facies types of the Madneuli polymetallic deposit, Bolnisi district, Georgia: Implications for the host rock depositional environment. 2th SGA Biennial Meeting: Mineral deposit research for a high-tech world. Sweden, Uppsala, In: Erik Jonsson et al. (eds), Proceedings, v. 2, p. 576-580.
17. **Popkhadze N.** (2012). First evidence of hyaloclastites at Madneuli deposit, Bolnisi district, Georgia. Bulletin of Georgian National Acad. of Sci. V.6 (3), p.83-90.
18. **Gugushvili V., Popkhadze N., Beridze T. and Khutsishvili S.** (2010). Sources of base, precious and rare metals during the Tethyan Phanerozoic evolution of the Caucasus and Pontides. Scientific Annals, School of Geology, Aristotle University of Thessaloniki. Proceedings of the XIX CBGA Congress, Thessaloniki, Greece. Special volume100, p. 333-341.

19. *Gugushvili V., Popkhadze N., Beridze T., Khutsishvili S., Chkhotua T., Tsimakuridze G.* (2010). Evolution of the Tethys Ocean expressed in Metallogeny of the Caucasus and Pontides. Proceedings of Al. Janelidze Institute of Geology, new ser., v.125. Tbilisi, p. 81-88.
20. *Popkhadze N., Beridze T., Moritz R., Gugushvili V., Khutsishvili S.* (2010). New Data about the Volcano-Sedimentary Setting of the Cretaceous Madneuli Polymetallic Massive Sulphide Deposit, Bolnisi District, Lesser Caucasus, Georgia. Williams PJ (ed.), Smart Science for Exploration and Mining, Vol, James Cook Univ, Townsville, Australia, pp. 478-480.
21. *Popkhadze N., Beridze T., Moritz R., Gugushvili V., Khutsishvili S.* (2009). Facies Analysis of the Volcano-Sedimentary Host-Rocks of the Cretaceous Madneuli Massive Sulphide Deposit, Bolnisi district, Georgia. Bulletin of Georgian National Acad. of Scie. V. 3, N2, pp. 103-108.
22. *Gugushvili V., Kutelia Z., Popkhadze N.* Gold-copper-porphyry and low- sulfidation gold ore system of the Bolnisi ore field, its geological structure and genetic features. Problematic issues of the Geodynamics, Petrology and Metallogeny of the Caucasus; Materials of the Scientific Session dedicated to 100 years anniversary of Academician Sh.A. Azizbekov, Baku 2006, pp. 280-296.
23. *Beridze T., Popkhadze N., Chagelishvili R., Khutsishvili S.* New data about Eocene volcanic and volcanogenic-sedimentary deposits of Akhaltsikhe depression (Uraveli river gorge). Bulletin of the Georgian National Academy of Sciences, 2017, vol. 11, no. 2, pp. 60-68.

#### Citation index

Web of Science - 107, h-index - 4; Scopus - 32, h-index - 4; Google Scholar - 174, h-index - 7.

#### Participation in scientific forums

1. Timing Late Cretaceous magmatic and metallogenic evolution of the Northern Lesser Caucasus, Tethyan orogenic belt: new zircon U-Pb age constrained from the Beqtakari epithermal deposits, Bolnisi district, Georgia. Sonmez S., Moritz R., Lavoie J., **Popkhadze N.**, Natsvlshvili M., Spanberger J. // The 20th Swiss Geoscience Meeting, Lausanne, Switzerland, 18-20 November, 2022, (in print).
2. The Late Cretaceous Sakdrisi epithermal deposit, Bolnisi district (Lesser Caucasus, Georgia): Geology and ore deposit setting. **Popkhadze N.**, Sonmez S., Moritz R., Natsvlshvili M., Bluashvili V., Gagnidze N. // XXII International Congress of the Carpathian-Balkan Geological Association (CBGA), 7-11 September, 2022, Plovdiv, Bulgaria, pp. 362.
3. Magmatic and metallogenic evolution of the Late Cretaceous Beqtakari epithermal deposit, Bolnisi district, Lesser Caucasus, Georgia. Sonmez S., Moritz R., Lavoie J., Ulianov A., Turlin F., **Popkhadze N.**, Natsvlshvili M., Spanberger J. // XXII International Congress of the Carpathian-Balkan Geological Association (CBGA), 7-11 September, 2022, Plovdiv, Bulgaria, pp. 363.
4. New data on Sakdrisi Au-Cu vein deposit (Georgia, Lesser Caucasus). Jeleu V., Bitsadze N., Ananiashvili G., Aslanishvili G., Shavishvili I., **Popkhadze N.**, Natsvlshvili M. // XXII International Congress of the Carpathian-Balkan Geological Association (CBGA), 7-11 September, 2022, Plovdiv, Bulgaria, pp. 190.
5. Mesozoic to Cenozoic metallogenic and magmatic evolution of the Eastern Pontides and the Lesser Caucasus. Moritz R., Hassig M., Grosjean M., Havakimyan S., **Popkhadze N.**, Delibas O. // SEG100 (Society of Economic Geologists) Conference, 2021 Vision: Celebrating a Century of Discovery, September 14-17, 2021, Whistler, Canada.

6. Diversity of Late Cretaceous epithermal systems of the Georgian Bolnisi and Turkish Artvin districts: products of a single ore-forming system during final Neotethyan subduction. Sonmez S.U., Moritz R., Lavoie J., Golay T., Gialli S., Turlin F., **Popkhadze N.**, Natsvlishvili M., Aydin Ü., Keskin S., Spangenberg J.//The 19th Swiss Geoscience Meeting, Geneva, Switzerland, 19-20 November, 2021, pp. 23-24.
7. Volcanogenic Deposits of Non-Ferrous Metals of the Central Segment of the Alpine-Himalayan Mountain-Belt and Problems of Ore Genesis. Kekelia S., Kekelia M., Asatiani G., Gagnidze N, **Popkhadze N**, Mshvenieradze I, Kharazishvili G.//6th International Scientific-Practical Conference on Up-to-date Problems of Geology – “The Development of Mining and Geology is the Precondition for the Revival of Economy”, Tbilisi, Georgia, 24-25 September, 2020, pp. 43-46.
8. The Eastern Pontides and Somkheto-Karabagh Arcs: Jurassic Early Cretaceous and Late Cretaceous-Cenozoic magmatism in relation to the Eastern Black Sea Basin. Hässig M., Moritz R., Ulyanov A., Chiaradia M., **Popkhadze N.**, Galoyan G., Enukidze O. //EGU General Assembly 2019, 7-12 April, 2019, Vienna, Austria.
9. The Eastern Pontides and Somkheto-Karabagh Arcs: Jurassic-Early Cretaceous and Late Cretaceous-Cenozoic magmatism in relation to the Eastern Black Sea Basin. Hässig M., Moritz R., Ulyanov A., Chiaradia M., **Popkhadze N.**, Galoyan G., Enukidze O. //AAPG GTW: Exploration and Production in the Black Sea, Caucasus, and Caspian Region, Batumi, Georgia, 18-19 September, 2019, pp. 11.
10. Gold Potential of the Southern Slope of the Greater Caucasus (Georgia). Kekelia S., Kekelia M., Gagnidze N., Mshvenieradze I., Lobzhanidze K., **Popkhadze N.**, Kharazishvili G.// 5th International Scientific-Practical Conference on Up-to-date Problems of Geology, Tbilisi, Georgia, 29-30 May, 2019, pp. 49-52.
11. Geological setting and lithological controls of breccia-hosted Cu-Au ore at the Cretaceous Kvemo Bolnisi prospect, Bolnisi, Lesser Caucasus, Georgia. **Popkhadze N.**, Corbett G., Cunliffe J., Royall J., Cleghorn S., Chokhanelidze M., Davles J., Hampton R., Newman J., Gelashvili L., Khmaladze K., Tedliashvili T., Moritz R.// Society for Geology applied to Mineral deposits (SGA) 15th SGA Biennial Meeting: Life with ore deposits on Earth, 26-30 August 2019, v. 3: p. 1097-1100.
12. New insights to Jurassic-Cretaceous Tethyan subduction dynamics along the Southern Eurasian margin: deformation and timing of magmatism across the Somkheto-Karabagh Mountain Belt, Lesser Caucasus, Armenia and Georgia. Hässig M., Moritz R., Ulyanov A., Chiaradia M., Galoyan G., **Popkhadze N.**//EGU General Assembly Conference Abstracts, Abstract book, Vol. 20, EGU2018-660, Vienna, Austria, 8-13 April, 2018.
13. Lithological control and facies architecture of the Late Cretaceous Kvemo Bolnisi Cu-Au prospect, Bolnisi mining district, Lesser Caucasus, Georgia. **Popkhadze N.**, Royall J., Cleghorn S., Newman J., Hampton R., Davles J., Gelashvili L., Khmaladze K., Tedliashvili T., Moritz R.// XXI International Congress of the Carpathian Balkan Geological Association (CBGA): Advances of Geology in southeast European mountain belts, Salzburg, Austria, 10-13 September, 2018, pp. 288.
14. Mesozoic to Early Cenozoic evolution of the Somkheto-Karabagh and Pontides Arcs: a regional study across Armenia, Georgia and Anatolia. Hässig M., Moritz R., Ulyanov A., **Popkhadze N.**, Galoyan G., Enukidze O.//XXI International Congress of the Carpathian Balkan Geological Association (CBGA): Advances of Geology in southeast European mountain belts, Salzburg, Austria, 10-13 September, 2018, pp. 286.
15. The evidence of Maar-diatreme system in the Madneuli copper-gold-polymetallic deposit, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R.//International Association of Volcanology

- and Chemistry of Earth's interior IAVCEI - 7th International MAAR Conference, 21-25 May, 2018, Olot, Catalonia, Spain, Abstract book, pp. 208-209.
16. Prospecting model for gold-quartz-low sulfide occurrences (Southern slope of the Greater Caucasus, Georgia). Kekelia S., Kekelia M., Gagnidze N., **Popkhadze N.**, Lobzhanidze K., Mshvenieradze I.//4th International Scientific-Practical Conference on Up-to-date Problems of Geology "Power of Geology is the Precondition for Regeneration of Economics", Tbilisi, Georgia, 29-30 May, 2018, pp. 52-55.
  17. The Sakdrisi Au-Cu deposit, Bolnisi mining district, Georgia: providing a genetic model based on petrographic, geochemical, structural, and alteration studies. Golay T., Moritz R., **Popkhadze N.**, Natsvlishvili M. //The 16th Swiss Geoscience Meeting, Bern, Switzerland, 30 November – 1 December, 2018, pp. 104-105.
  18. Reconstruction of the geodynamic and magmatic evolution of the Somkheto-Karabagh and Pontides Arcs from the Mesozoic to Early Cenozoic across Armenia, Georgia and NE Turkey. Hässig M., Moritz R., **Popkhadze N.**, Ulyanov A., Chiaradia M., Galoyan G.//The 16th Swiss Geoscience Meeting, Bern, Switzerland, 30 November - 1 December, 2018, pp. 42-43.
  19. Jurassic and Cretaceous geodynamic environments of ore formations along the Tethyan belt: New insights from the structural contexts along the Somkheto-Karabagh Mountain belt, Armenia and Georgia. Hässig M., Enukidze O., galoyan G., **Popkhadze N.**, Moritz R.//The 15th Swiss Geoscience Meeting, Davos, Switzerland, 17-18 November, 2017, pp. 10-11.
  20. Svaneti Gold Deposits (Kirar-Abakuri Ore Knot) and Their Genesis. Kekelia S., Kekelia M., Gagnidze N., **Popkhadze N.**, Mshvenieradze I., Kharazishvili G. //3d International Scientific-Practical Conference on Up-to-date Problems of Geology – "Power of Geology is the Precondition for Regeneration of Economics", 1-2-June, 2017, Tbilisi, Georgia, pp. 61-65.
  21. Geological Setting and Genetic model of the Zopkhito prospect (Southern slope of the Greater Caucasus, Georgia. Kekelia S., Kekelia M., **Popkhadze N.**, Mshvenieradze I., Asatiani G., Gagnidze N., Lobzhanidze//3d International Scientific-Practical Conference on Up-to-date Problems of Geology - "Power of Geology is the Precondition for Regeneration of Economics", 1-2-June, 2017, Tbilisi, Georgia, pp. 66-67.
  22. Vardzia pyroclastic flow (Samtskhe Javakheti volcanic province): eruption center and zircons U-Pb dating. Okrostsvardize A., Chung S.-L., **Popkhadze N.** //3d International Scientific-Practical Conference on Up-to-date Problems of Geology – "Power of Geology is the Precondition for Regeneration of Economics", 1-2-June, 2017, Tbilisi, Georgia, pp. 104-108.
  23. Late Cretaceous phreatomagmatic volcanism and distribution of ore deposits in the Bolnisi district: constrains from the Madneuli polymetallic deposit, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R., Kekelia S.//International Association of Volcanology and Chemistry of the Esrth's Interior IAVCEI2017 Scientific Assembly: fostering integrative studies of volcanism, 14-18 August, 2017.
  24. Evidence of submarine depositional environment for the host rocks of the Upper Cretaceous Madneuli polymetallic deposit, lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R. //International Association of Volcanology and Chemistry of the Esrth's Interior IAVCEI- (American geophysical Union) AGU CHAPMAN Conference on submarine volcanism: New approaches and research frontiers. January 30 - February 3, 2017.
  25. Maat-diatreme volcano on the Madneuli polymetallic deposit: Lesser Caucasus, Georgia (implication for the host rock facies architecture). **Popkhadze N.**, Moritz R. // International Association of Volcanology and Chemistry of the Esrth's Interior IAVCEI- 4rd International Volcano Geology Workshop: Challenges of mapping in poorly-exposed volcanic areas, Eastern Transylvania, Romania, 8-14 October, 2017, abstract book, pp.92-93.

26. Gold deposits of the Lesser Caucasus: products of the successive Mesozoic and Cenozoic geodynamic settings. Moritz R., Rezeau H., Mederer J., Dialli S., Hemon P., Lavoie J., Calder M., Hovakimyan S., Melkonyan R., Tayan R., **Popkhadze N.**, Gugushvili V., Ramazanov V. // 14th SGA Biennial Meeting: Mineral resources to discovery, Quebec City, Canada, 20-23 August, 2017, Proceedings v.1, p.67-70.
27. First evidence of phreatomagmatic breccia at the Madneuli Polymetallic Deposit, Bolnisi district, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R., Natsvlishvili M., Bitsadze N. // 14th SGA Biennial Meeting: Mineral resources to discovery, Quebec City, Canada, 20-23 August 2017, Proceedings v.3, p.323-326.
28. Gold Occurrences of Georgia. Gagnidze N., **Popkhadze N.**, Kekelia S., Kekelia M., Asatiani G., Mshvenieradze I., Kharazishvili G. // International Scientific-Practical Conference on Up-to-date Problems of Geology- "Power of Geology is the Precondition for Regeneration of Economics", Tbilisi, Georgia, 19-20 May, 2016. Abstract book, pp. 36-38.
29. Characteristic features of Upper Cretaceous volcano-sedimentary host rocks at Madneuli polymetallic deposit, Bolnisi district, Georgia. **Popkhadze N.**, Moritz R., Kekelia S. // International Scientific-Practical Conference on Up-to-date Problems of Geology- "Power of Geology is the Precondition for Regeneration of Economics", Tbilisi, Georgia, 19-20 May, 2016. Abstract book, pp. 98-101.
30. The lobe-hyaloclastite in the Madneuli deposit: useful criteria for the reconstruction of a lava dome structure, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R. // IAVCEI commission of Volcano Geology – 3rd International Workshop, Etna-Aeolian Islands: Geological fieldwork in volcanic areas: mapping techniques and applications, Sicily, Italy, July 3-10, 2016, Abstract book, pp. 43-45.
31. Megavolcano in the Late Cenozoic Samtskhe-Javakheti Volcanic Province? Lesser Caucasus, Georgia-Turkish Border. Okrostsvaridze A., **Popkhadze N.**, Kirkitadze G. // IAVCEI Commission on Collapse Calderas: VI International Workshop on Collapse Calderas: Toya, Shikotsu and Kuttera calderas. Kitayuzawa hot spring site, Hokkaido, Northern Japan, September 4-10, 2016, Abstract book, pp. 22-23.
32. Upper Cretaceous Ignimbrites in the Bolnisi district, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R. // IAVCEI Commission on Collapse Calderas: VI International Workshop on Collapse Calderas: Toya, Shikotsu and Kuttera calderas. Kitayuzawa hot spring site, Hokkaido, Northern Japan, September 4-10, 2016, Abstract book, pp. 43-44.
33. Evolution of volcanism at the Late Cretaceous Madneuli Copper gold-polymetallic deposit, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R., Kekelia S. // 14th Swiss Geoscience Meeting 2016, Geneva, Switzerland, 18-19 November, 2016, Abstract book, pp. 68-69.
34. Pliocene-Quaternary Samtskhe-Javakheti Volcanic Highland, Lesser Caucasus-as a result of mantle plume activity. Okrostsvaridze A., **Popkhadze N.**, Bluashvili D., Skhirtladze I. // International conference: IGCP 610 - From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary. The fourth plenary meeting and field trip. Tbilisi, Georgia. 2-9 October, 2016, Abstract book, pp. 127-130.
35. Evidence of shallow-marine depositional environment of the host rocks of the Madneuli Polymetallic Deposit, Bolnisi district, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R., Gialli S., Gugushvili V. // 13th SGA Biennial Meeting: Mineral resources in sustainable world, 23-28 August, 2015, Nancy, France, Proceedings, v. 5, pp. 2083-2086.
36. The Late Cretaceous Epithermal Beqtakari Prospect, Bolnisi Mining District, Georgia, Lesser Caucasus. Lavoie J., Moritz R., **Popkhadze N.**, Spangenberg J. // SEG-Society of Economic Geologists-Conference: The Challenge of Finding New Mineral Resources: Global

- Metallogeny, Innovative Exploration and New Discoveries, Keystone Resort, Colorado, USA. 2010/Extended Abstract of posters D-16.
37. Volcano-sedimentary and sedimentary host rock structures the polymetallic Upper Cretaceous Madneuli deposit, Lesser Caucasus: useful criteria for facial unit interpretation. **Popkhadze N.**, Moritz R.//1st International Workshop on Volcano Geology, Madeira, Portugal, 7-11 July, 2014, Abstract book, pp. 118-119.
  38. The products of phreatomagmatic eruption at the Upper Cretaceous Madneuli polymetallic deposit, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R.// 5th International Workshop on Collapse Calderas (Caldera volcanism and society) and 3rd International Course on Collapse Calderas, Taupo, New Zealand, 7-11 December, 2014, Abstract book, pp. 54.
  39. Summary of the principal volcano-sedimentary facies types of the Madneuli copper-gold polymetallic deposit, Bolnisi district, Georgia. **Popkhadze N.** // Ivane Javakhishvili Tbilisi State University First Annual Faculty Scientific Conference in Exact and Natural Sciences, Geology Section, Tbilisi, Georgia, 4-11 July, 2013.
  40. Major volcano-sedimentary facies types of the Madneuli polymetallic deposit, Bolnisi district, Georgia: Implications for the host rock depositional environment. **Popkhadze N.**, Moritz R., Gialli S., Beridze T., Gugushvili V., Khutsishvili S.//12 th Biennial SGA Meeting–Mineral deposit research for a high-tech world, Uppsala, Sweden, 12-15 August, 2013, pp. 575-580.
  41. Characteristics of the Late Cretaceous Bolnisi VMS-epithermal mining host rock petrology and geochemistry, Lesser Caucasus, Georgia. **Popkhadze N.**, Moritz R., Beridze T., Gugushvili V., Khutsishvili S., Gialli S. //GRC- Gordon Research Conference: Geochemistry of Mineral Deposits, Proctor Academy, 204 Main Street, Andover, NH, United States, 15-20 July, 2012.
  42. The Madneuli Polymetallic Deposit, Lesser Caucasus, Georgia: A Transitional System with Magmatic Input in a Submarine Environment. Gialli S., Moritz R., **Popkhadze N.**, Gugushvili V., Migineishvili R., Spangenberg J.//XVI Peruvian Geological Congress& SEG (Society of Economic Geologists) International Conference, Lima-Peru, 23-26 September, 2012.
  43. Diversity of geodynamic settings during Cu, Au and Mo ore formation in the Lesser Caucasus: New age constraints. Moritz R., Selby D., Ovtcharova M., Mederer J., Melkonyan R., Hovakimyan S., Tayan R., **Popkhadze N.**, Gugushvili V., Ramazanov V.//1st European Mineralogical Conference, Frankfurt, Germany, 2-6 September, 2012, Abstract vol., pp. 745.
  44. The Madneuli polymetallic deposit, Georgia: Evidence for a magmatic input a submarine, transitional hydrothermal system. Gialli S., Moritz R., **Popkhadze N.**, Gugushvili V., Migineishvili R., Spangenberg J.//10th Swiss Geoscience Meeting, Bern, Switzerland, 16-17 November, 2012, Abstract volume, pp. 119-120.
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50. Stratigraphy and sedimentology of the Cretaceous host-rocks of the Madneuli gold-polymetallic deposit, Lesser Caucasus, southern Georgia, A new approach. Beridze T., Khutsishvili S., **Popkhadze N.**, Moritz R., Gugushvili V.//9th Swiss Geoscience Meeting, Zürich, Switzerland, 11 - 13 November, 2011, Abstract book, pp. 107.
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55. Summary of the principal volcano-sedimentary facies types of the Madneuli copper-gold polymetallic deposit, bolnisi district, Georgia: Implications for the host rock depositional environment. **Popkhadze N.**, Beridze T., Moritz R., Gugushvili V., Khutsishvili S. // 2010 Conference “The Challenge of Finding New Mineral Resources: Global Metallogeny, Innovative Exploration, and New Discoveries”, Keystone Resort, Colorado, USA, September 30 – October 9, 2010. Abstract book, pp. 40-43.
56. New Data about the Volcano-Sedimentary Setting of the Cretaceous Madneuli Polymetallic Massive Sulphide Deposit, Bolnisi District, Lesser Caucasus, Georgia. **Popkhadze N.**, Beridze T., Moritz R., Gugushvili V., Khutsishvili S. // 10th Biennial SGA Meeting of the Society-for-Geology-Applied-to-Mineral-Deposits. Townsville, Australia, 14-26 August, 2009, Abstract volume, pp. 478-480.
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- geology, the geodynamics and the metallogeny of the Caucasus and the Balkans. Tbilisi, Georgia. 27-29 May, 2009. Abstracts, P. 5. pp. 10-11.
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  60. The place of the Bolnisi ore district, Georgia in the Tethyan-Eurasian metallogenic belt and peculiarities of its mineralization. Gugushvili V., **Popkhadze N.**, Beridze T., Chagelishvili R. SCOPES meeting: Advances in regional geological and metallogenic studies in the Carpathians, Balkans, Rhodope Massif and Caucasus. Bor, Serbia. 4-7 Sept., 2007, pp. 21-22.
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  62. Oligocene-Neogene Growth Strata at Eastern Achara-Trialeti Fold and Thrust Belt, Georgia. Alania V., Beridze T., Chagelishvili R., Enukidze O., Khutsishvili S., Mikeladze V., **Popkhadze N.**, Razmadze A. Joint Earth Science Meeting - Thrust belt and foreland basins. Rueil-Malmaison, France, December 14-16, 2005. Abstracts, pp. 26-27.
  63. Paleogene Achara-Trialeti Back-arc rift basin: formation and evolution. Beridze T., Khutsishvili S., Chagelishvili R., **Popkhadze N.** 32-nd International Geological congress. Italy, Florence. August 20-28, 2004. Abstracts, pp. 291-292.

### Grant projects

1. Development of geological-genetic prognostic basis for quartz-low sulfide vein type gold deposits, on the example of Upper Svaneti region (Georgia). 2015-2018. Grant of Shota Rustaveli National Science Foundation of Georgia (№ FFFR/8/1-152/14). Key Personnel.
2. Metallogeny of the Lesser Caucasus. 2009-2012. Swiss national science foundation; The Scopes project №IZ73ZO\_128324; (Switzerland-Georgia-Armenia and Azerbaijan). Coordinator of the project.
3. Gold copper-porphyry and epithermal low sulfidation gold mineralization of the Bolnisi ore district, ore formation and economical perspective. 2008-2010. Grant of Shota Rustaveli National Science Foundation of Georgia N 204. Key Personnel.
4. Tectonic and magmatic controls on Cretaceous and Tertiary gold and copper deposits of Rodope massif, Srednegorie belt and Caucasus, Bulgaria and Georgia. 2005-2008. Swiss Scientific Foundation SCOPES project № 7BUPJ062276. Key personnel.
5. The Upper Cretaceous porphyry and epithermal ore deposits, magmatism and ore forming systems in Srednegorie zone (Bulgaria) and Adjara-Trialeti (Georgia). 2005-2005. Bulgarian National Science foundation. № NF -1412. Project coordinator.
6. Regularities of Cretaceous-Paleogene volcanism evolution and volcano-sedimentary lithogenesis of Ajara-Trialeti folded zone and neighboring areas. 2004-2005. Grant of Academy of Sciences of Georgia. Key Personnel.

### **Additional information**

2023 – IAVCEI2023 International Association of Volcanology and Chemistry of the Earth's Interior scientific assembly (Rotorua, New Zealand). Member of organizing committee. Convener of special scientific symposia: "Volcanos, energy, resources and environment/Volcanology for Geothermal Energy and Ore deposits". <https://confer.eventsair.com/iavcei2023/scientific-symposia>

2021 – Georgian National Academy of Sciences honorary diploma on World Science day established by UNESCO for Scientific achievement in the field of Geology.

2018 – October 2-10 – Geological training course – "Volcanology for Exploration Geologists – Key Concepts and Field Techniques". Prof. Jocelyn MacPhie (University of Tasmania) and Dr. Gonca Gencalioglu Kusu (Turkey). Konya, Turkey.

2017 - Present – Member of International Association of Sedimentologists (IAS).

2017 – IAVCEI2017 - International Association of Volcanology and Chemistry of the Earth's Interior scientific assembly (Portland, Oregon, U.S.A). The member of organizing committee: Convener of special scientific symposia: "Volcanos, energy, resources and environment/Volcanology for Geothermal Energy and Ore deposits".

2015 - Present – Member of IAVCEI - Commission on Collapse Calderas.

2010 – Certified course -"Fluid Inclusions". Prof. Robert Moritz. University of Geneva, Switzerland. Department of Earth Sciences.

2010 - Certified course – "Physical volcanology and setting of massive sulfide deposits of the Iberian Pyrite Belt district, including Neves Corvo, Portugal." Organized jointly by the Department of Geology of the University of Lisbon, Portugal, Prof. J Relvas and the Earth and Environmental Science section of the University of Geneva, Switzerland, Prof. Robert Moritz.

2009 - Present – Member of Society for Geology Applied to Mineral Deposits (SGA) International organization.

2008 – Present – Member of IAVCEI-International Association of Volcanology and Chemistry of the Earth's Interior.

2011 October 26–November 11 – Certified course Ore Microscopy. Prof. Luis Fontbote and Prof. Kalin Kouzmanov. University of Geneva, Switzerland. Section of Earth Sciences. Department of Mineralogy.

2008-2018 – Member of the Society of Economic Geologists (SEG).