Genetic types of gold deposits and gold-mining history

Ani Martkoplishvili

ani.martkoplishvili914@ens.tsu.edu.ge

Department of Geology, Faculty of Natural Sciences, Ivane Javakhishvili Tbilisi State University

Gold is a chemical element of Mendeleev periodic system in group I, which naturally consists of one isotope "197Au". Otherwise in the Laboratory 13 radioactive gold isotopes are discovered. Gold is one of the first discovered metal which doesn't lose its meaning still.

In the nature there are found as native gold as well as it is connected with other metals in the form of solid solutions, for egsample:Cuproauride, bismutoauride, porpetsidi and other.

Also there are known gold telluride in the nature: Calaveriti (AuTe2) and Montbreiiti (AuTe3). Gold ore is a mineral aggregate, which contains gold as an industrial units. Despite of to the native gold ores, there are also known gold-containing ores (copper, nickel, zinc, silver, iron, manganese) where gold is like as accompanying components, and often is found out as impregniated form in other minerals: in arsenopirie, in chalcopyrite, in pyrite, in tenantite, in galennite and in other sulphides can be found as well.

There are numerous gold deposit classification suggested by various authors, that are depended on many subjective and objective factors. Today there are described 16 types of gold deposits, each of them are representing of a different geological processes of interference and therefore they are diferented with each other.

Industrial importance gold deposits are: Paleoplacer deposits, Submarine gold-rich massive sulfide deposits, Hot spring deposits, Adularia-sericite epithermal deposits, Alunite-kaolinite epithermal deposits, Porphyry gold deposits, Breccia pipe deposits, Skarn gold deposits, Carbonate replacement (manto) deposits, Sediment-hosted micron gold deposits, Non-carbonate stockwork-disseminated gold deposits , Au-Cu sulfide-rich vein deposits, Batholith-associated quartz vein deposits, Greenstone-hosted quartz-carbonate vein deposits, Turbidity-hosted quartz-carbonate vein deposits, Iron-formation-hosted vein and disseminated deposits.

References

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