Week 4 Assignment 1

Due on 2018-02-21, 23:59 IST

1. What do you mean by hydrothermal and discuss possible sources of hydrothermal fluid? [2 Points]
2. Hydrothermal ore deposits result from fluids of diverse sources. What methods would you employ to reveal the identity of the fluids involved in a particular deposit? [2 Points]
3. Is there any way to estimate the temperature of ore fluid from which the deposit has been formed. Justify your answer? [2 Points]
4. How are oxygen isotopes important in estimating the temperature of formation of an ore deposit? [2 Points]
5. Outline the principles of Mineral Thermometry as applied to sulfide ore deposits. [2 Points]
6. How fluid inclusions of different types get trapped within a hydrothermal vein during its growth with multiple generations of fluids? [2 Points]
7. Why are the majority of fluid inclusion studies done on Quartz? Also, name some other suitable host minerals. [2 Points]
8. What are the assumptions for fluid inclusion studies to retrieve physicochemical parameters of ore fluid? [2 Points]
9. Define Temperature of Homogenization and how is it different from the temperature of entrapment? [2 Points]
10. How the changes in T-P condition affect the evolution of aqueous-carbonic inclusion from a mono-phase homogenous fluid? [2 Points]
11. Describe in brief how the study of Fluid Mixing, Un-mixing and Boiling help to understand the formation of mineral deposit? [2 Points]
12. Explain why different metals are transported as different types of complexes in hydrothermal fluids. What are the dominant mechanisms of deposition of metals from hydrothermal fluids? [2 Points]
13. What do you understand by 'hard' and 'soft' metals and ligands and define its implication in Metal-Ligand specificity? [2 Points]

Due Date Exceeded.
As per our records you have not submitted this assignment.