

## **General Theme 6**

### **6.12**

Sedimentary basins of all ages host significant accumulations of a wide range of economic commodities. Mineralization can be found from deep sea-floor sediments up to shallow marine platforms and continental settings, and the understanding of the timing and mechanisms of mineralization is of prime importance to define exploration vectors and evaluate the potential of specific accumulations.

Sedimentary control of ore deposits is an important element to consider as the role of the geometry of the ore deposits and its relationships with various geological parameters of the host formations can serve as exploration guide. This control comprises some critical large-scale control such as lithology (siliciclastic versus carbonates), nature and evolution of the depositional environments and resulting stacking and stratigraphic framework. However, secondary controls cannot be neglected as textural characteristics of the sediments (grain size, sorting, evolving pore space) are also significant elements.

Complementary to the fundamental sedimentary component, understanding of ore processes in sedimentary basins is critical in order to take into account all processes from the ore source, migration and deposition, including the nature and the origin of mineralizing fluids and the followed pathways (fluid transfer, evolution of porosity/permeability) during the successive stages of diagenesis.

Our session welcomes fundamental and applied papers on both the sedimentary control and ore processes. Depending on the contributions, we may plan a special issue in a journal.