

## **General Theme 6**

### **6.2**

Chemostratigraphy is a very powerful and relatively cheap tool to enhance any sedimentological study. It can help validate or refine hypotheses; it can be used to correct assumptions made from outcrops, cores or thin section descriptions. It can deliver solid correlations essential to sedimentology as to compare coeval units for proper sedimentological work. Chemostratigraphy is constantly bringing new understanding of sedimentary and diagenetic processes and new relationships between elemental compositions and environments. It has direct applicability to the civil engineering world and to the oil and gas industry. Numerous laboratory and handheld tools are available with varying applicability. Among these tools, X-ray fluorescence is one the most commonly used. Magnetic susceptibility can be a very good complement to a sedimentology work by identifying and characterizing rock units that can be correlated. Image analysis of core slabs or thin sections help validate or consolidate sedimentological interpretations. Results of image analysis can be integrated with various work addressing rock fabric, organic matter quantity and distribution as well as brittleness after calibration with XRF data.

This session aims at bringing together users of the various chemostratigraphic tools and interested audience in this approach in order present the most recent developments in that field as well as examples of successful applications and cross-fertilization with other scientists involved in sedimentary basin analyses and resource evaluation.