

## **GEMS ASSOCIATED WITH LARAMIAN MAGMATITES IN THE VALEA CHIOARULUI AREA, TRANSYLVANIA (ROMANIA)**

1GHERGARI, L., 1IONESCU, C.Babes-Bolyai University of Cluj-Napoca, Romania

The silicolites from Valea Chioarului (Baia Mare district, Romania) are related with a bentonite - Na montmorillonite body. In the Jibou Formation, constituted by red continental deposits (pebbles – conglomerates, sands – sandstones, silts - siltic clays), a rhyolitic dyke is inserted. The rhyolitic dyke has an explosive character, proved by the presence of the phreato-magmatic tuffaceous material. The hydrothermal mineralization process comprises two stages: a. The first stage, of high-temperature (280-320°C), generated geodes of 50 x 20cm sizes, covered with white, pinkish or light bluish microcrystalline quartz. Inside the geodes, amethyst crystals of 1 cm occur. In the amethyst crystals, the thermometry revealed the presence of some liquid-gas inclusions, disposed on the crystal growth lines. b. The second stage, of low temperature (under 150°C), which implied meteoric waters ( $\delta D = -64.91\text{‰}$ ) generated the the global Na-montmorillonitization and cristobalitization alteration of the tuffs and rhyolites. In this stage, celestite, barite and marcasite were deposited on the fissures and holes. Numerous silica nodules of 0.5-20cm also occur, due to the silica-excess resulted durind the bentonitization process. The silica nodules are transparent or translucide and their colors range from colorless to white, grey, pinkish, purple-pinkish. Gemmologically, the colorless and amethystic quartz crystals from geodes as well as the massive microcrystalline quartz from nodules are of great interest.