

Zeolite deposit Igroš near Brus (Central Serbia)

The Igroš zeolite deposit is located in central part of Serbia, around 250 km from Belgrade. The Igroš village is 8 km away from the nearest town Brus, and is connected by asphalt road to the main road Kruševac – Brus – Kopaonik.

Serbian zeolite tuff deposits are genetically connected to volcanic-sedimentary rocks. Tuffs rich in HEU type minerals were deposited in marine and lake sediments during Neogene period. Genesis of zeolite minerals is related to the process of diagenesis of volcanic glass.

Detailed geological exploration in the period 1995-2010 revealed that the Igroš deposit consists of two separate bodies, namely Igroš-Vidojevići I and II. Zeolite body I has been explored in the area of 170 x 50 m, with average thickness of 1.64 m. Zeolite body II has the area of 300 x 100 m, and the average thickness is 1.82 m.

Zeolite deposit, which originated by diagenesis of ash-fall tuff, contains two varieties of ore – highly zeolitised (~80 % of zeolite minerals) light grey to white tuff and greenish tuff with lower (40-50 %) zeolite content. Mineral composition of both zeolite varieties is similar, with clinoptilolite-heulandite as the main mineral, quartz, feldspars, mica, volcanic glass, and small amount of clay, carbonates. Zircon and apatite are accessory minerals. The average value of CEC in zeolite body I is 167 meq/100 g, while in zeolite body II is 138 meq/100 g.

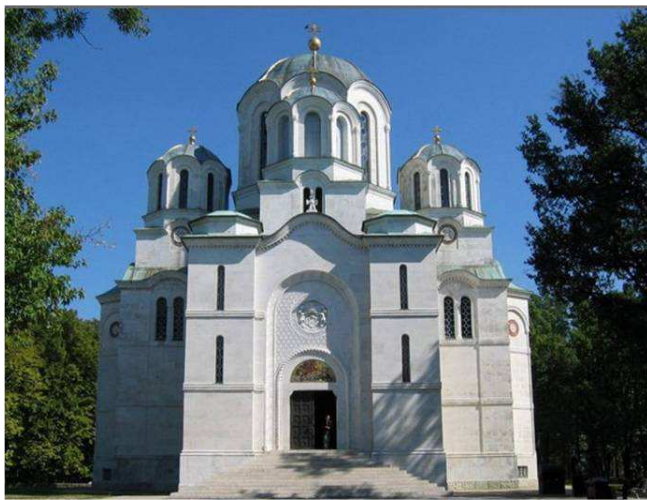
Total measured resources in both ore bodies are 46,000 t of high grade and 5,000 t of lower grade zeolite. The estimated annual exploitation is 2,000 t.



Field trip to Igroš zeolite deposit - preliminary program

Day 1: June 13th, 2014.

The bus departure from Belgrade will be at 12:00 h. First break will be at Topola and Oplenac, the Karadjordjević Memorial, with organized visit to the memorial saint George Church, which is the mausoleum of Karadjordjević royal family. The church is built of white marble and the interior is decorated with 40 million mosaic pieces in 15,000 colour shades. Lunch is organized in a restaurant which is part of an ethno complex with authentic local atmosphere and the beautiful panoramic view of Šumadija. After lunch, travel continues with a few short breaks and arrival to Kopaonik mountain will be in the evening (accommodation and dinner at the hotel).



Saint George Church

Day 2: June 14th, 2014.

After breakfast, departure to Igroš to visit the zeolite deposit. During the return trip to Belgrade, first break will be visit to Aleksandrovac and one of the numerous wineries of the Župa region, where one can enjoy tasting wines of the region. Second break will be in the Kruševac city with organized visit to the church Lazarica and old Lazar's town, the capital of Prince (duke) Lazar founded in 1371. Lunch will be at a local restaurant. Arrival in Belgrade will be in the evening.



Lazarica church



Old Lazar's town