

Bertrandite from Portuguese pegmatites

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The beryllium sorosilicate Bertrandite ($\text{Be}_4(\text{Si}_2\text{O}_7)(\text{OH})_2$) is one of the most important beryllium minerals that could be found

in granitic pegmatites. Is a secondary mineral, formed after the hydrothermal alteration of Beryl ($\text{Be}_3\text{Al}_2(\text{Si}_6\text{O}_{18})$), with mobilization of beryllium in form of fluoride complexes.

Also, Bertrandite could form epithermal assemblages with Phenakite and Topaz in rhyolites. Occasionally, the beryllium mobilization and concentration in Bertrandite and Phenakite constitutes a viable source for the metal.

The occurrence of beryllium-rich pegmatites in the center- north region of Portugal is frequent and the alteration of the primary minerals lead to the formation of beautiful assemblages of secondary minerals. The Bertrandite is relatively frequent in these pegmatites, forming occasionally beautiful specimens. We had the opportunity to identify the Bertrandite in beautiful specimens from several Portuguese locations:



Impressive centimeter-size crystal of Bertrandite from Panasqueira mine (Castelo Branco). This picture was published in the number of Lapis journal devoted to Panasqueira mines.



Twinning of Bertrandite crystals. Panasqueira mine.



Bertrandite from Bom Sucesso quarry (Chas de Tavares, Mangualde)



A typical habit of Bertrandite, forming radial groups of thin crystals. From Bom Sucesso quarry.



Bertrandite from the famous Senhora da Assunção mine (Aldeia Nova, Ferreira de Aves, Sátão, Distrito de Viseu).



Group of bertrandite crystals from Assunção mine.



1 cm bertrandite crystal from Assunção mine.