A new find of sphaerobertrandite from the Larvik Plutonic Complex, Norway

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Sphaerobertrandite, $Be_3SiO_4(OH)_2$, was first insufficiently described by Semenov (1957) from the Lovozero and Khibina alkaline massifs on Kola Peninsula, Russia. A new study by Pekov *et al*. (2003), based on material both from Tvedalen, Larvik and the Kola peninsula, revalidated the mineral species. The mineral has been reported from Hsianghualing, Hunan, China (Huang *et al*. 1988) and from the Ilimaussaq alkaline massif, South Greenland (Petersen 2001). Sphaerobertrandite has been found in the Skallist larvikite quarry, Tjølling, Larvik (Larsen & Stensvold 2015). In all localities sphaerobertrandite is regarded as a very rare mineral and found in sparse amounts only.

In June 2014 the mineral collectors Jens Andreas Larsen and Tordis Larsen handed over some samples to the present author showing tiny, white to beige spherulites richly scattered in vugs in analcime. The spherulites were subsequently identified using PXRD as sphaerobertrandite, and thus the third find in the Tvedalen area. The samples were found in the larvikite quarry "Johs. Nilsen's Vevja". The spherulites of sphaerobertrandite are up to 0.1 mm across and occur grown on aegirine and hambergite crystals or line small vugs in corroded analcime (Figs. 1 and 2). Associated minerals include natrolite, hambergite, biotite, chlorite, stilpnomelane, montmorillonite, apophyllite, zircon, fluorite and calcite. Sphaerobertrandite and calcite are the last paragenetic crystallized minerals.

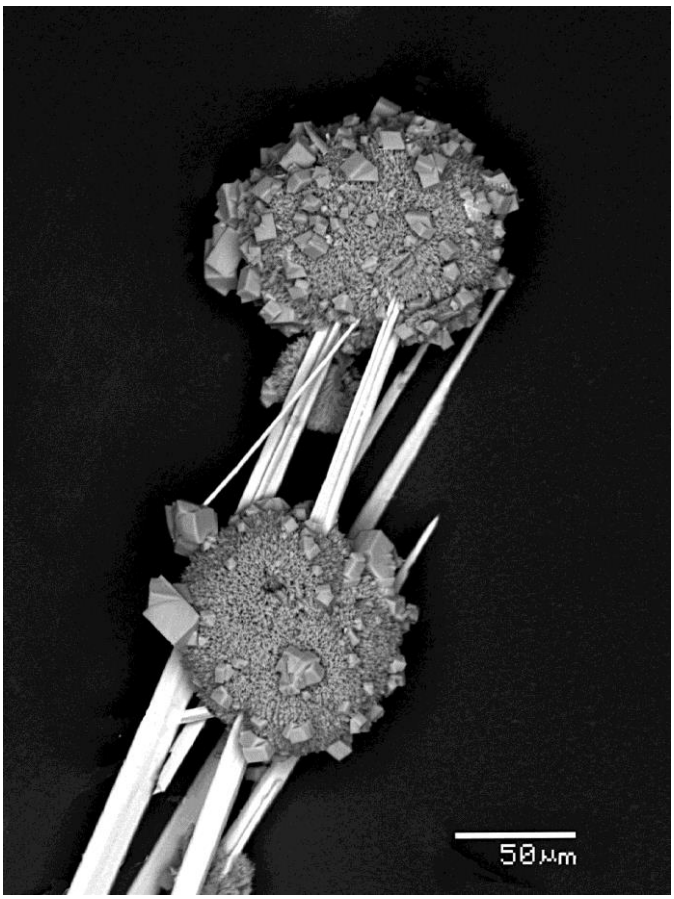

Fig. 1. Spherulites of sphaerobertrandite on aegirine needles.The spherulites are sprinkled with calcite crystals. From the quarry "Johs. Nilsen's Vevja", Tvedalen.
SEM photo: A.O.Larsen.

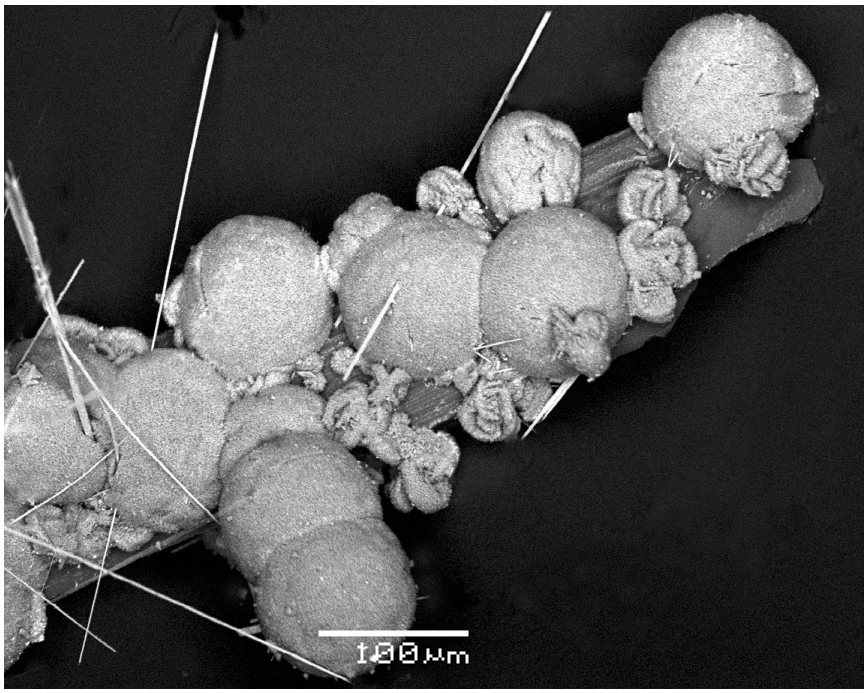

Fig. 2. Sphaerobertrandite and aegirine needles on a crystal of hambergite.
From the quarry "Johs. Nilsen's Vevja", Tvedalen. SEM photo: A.O.Larsen.

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