

Stilbite, stellerite, and laumontite at Honningsvåg, Magerø, northern Norway.

By

PER CHR. SÆBØ¹, PAUL H. REITAN², AND J. J. C. GEUL³

Samples from two localities near Honningsvåg on the island of Magerø, northern Norway, were found to contain zeolites. Stilbite (desmine) and stellerite occur on joint surfaces in the steeply dipping Eocambrian schists at Juldagsneset, SE of Honningsvåg, and laumontite was found on joint surfaces N of Honningsvåg, in the contact metamorphosed rock (hornfels) adjacent to the gabbroic rocks near Honningsvåg.

A sample from Juldagsneset, which includes part of a nearly vertical joint, shows that the joint is filled by calcite and in some parts rather much of a pink zeolite, the calcite being innermost and the zeolite occurring on both sides. In small cavities there occur small, radial aggregates of a colorless zeolite. The x-ray powder diagrams of the two zeolites are identical, but on the basis of optical data we have identified them as stilbite and stellerite, respectively. Along with the stilbite there can occasionally be seen a little bright green epidote.

Stilbite occurs as a coating on the surfaces of the vein calcite. Individual grains are difficult to delimit but are up to about 2 mm in size. Crystal forms are not well developed. $\alpha = 1.487 \pm 0.004$ and $\alpha \wedge c \simeq 3^\circ$. The color is light, yellowish pink.

Stellerite occurs in small, semi-spherical, radial aggregates mostly about 0.5 mm in diameter but some are up to about 1 mm. The crystals are apparently complexly twinned. $\alpha = 1.485 \pm 0.003$ and $\gamma \sim$ or < 1.500 . $\alpha \wedge c \simeq 0$, never as much as $\frac{1}{2}^\circ$. The crystals are colorless. Stellerite is the latest mineral in the paragenesis along the joint.

¹ Mineralogisk Museum, Universitetet i Oslo.

² Norges Geologiske Undersøkelse.

³ University of Leyden, Holland.

Laumontite was identified by its x-ray powder pattern. It was found on a joint surface included in a sample taken from the hornfels N of Honningsvåg near the large area of gabbros. The hornfels is an extremely fine-grained pyroxene-plagioclase-quartz rock in which there occurs much epidote, some biotite and calcite, and a little apatite, titanite, chlorite, and ilmenite. The rock is massive and the microtexture is granular. It is probably a contact metamorphosed sediment. The laumontite is colorless, very fine-grained (< 1 mm), and acicular, the long axes of the grains are parallel to the joint surface but the grains are not oriented within this plane. $\gamma = 1.520 \pm 0.003$ and $\gamma \wedge c$ is variable (even within a single grain) from 28° to 34° . $2V$ is approximately 50° . Dispersion is moderate, $r < v$, and inclined.

In Oftedal's (1948) survey of the minerals of Norway these three zeolites are not mentioned from localities north of Sulitjelma. Stilbite (possibly stellerite) was mentioned by Foslie (1942) from Kvaldalen, ca. 90 km NNE of Sulitjelma. Stellerite has only rarely been identified from localities in Norway (see Neumann, 1944, and Bugge, 1954), and to our knowledge, never before from northern Norway.

Norsk sammendrag.

Desmin, stellerit og laumontit ved Honningsvåg, Magerø, Nord-Norge.

Prøver fra to lokaliteter ved Honningsvåg, Magerø, Nord-Norge, inneholder zeoliter. Desmin og stellerit forekommer i en sleppefylling i Eokambriske skifre på Juldagsneset, SØ for Honningsvåg, og laumontitt i en sleppefylling i hornfels i nærheten av gabbroene N for Honningsvåg.

Desmin og stellerit, som gir nøyaktig like røntgendiagrammer, ble skilt p.g.a. optiske data. Desmin: $\alpha = 1.487 \pm 0.004$, $\alpha \wedge c \simeq 3^\circ$ og farven er gulaktig lyserød. Stellerit: $\alpha = 1.485 \pm 0.003$, $\gamma \sim$ eller < 1.500 , $\alpha \wedge c \sim 0^\circ$ og mineralet er farveløst.

Laumontiten er farveløs, finkornet (< 1 mm), prismatisk, $\gamma = 1.520 \pm 0.003$, $\gamma \wedge c$ varierer (til og med innen samme krystall) fra 28° til 34° . $2V \sim 50^\circ$, disperasjon moderat, $r < v$, og skjevt.

Oftedal (1948) nevner ikke disse zeoliter fra steder nord for Sulitjelma. Stellerit er sjelden blitt identifisert fra lokaliteter i Norge (se Neumann, 1944, og Bugge, 1954) og aldri før, så vidt vi vet, fra Nord-Norge.

Literature.

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