THE SCANDIUM CONTENT OF SOME NORWEGIAN MINERALS AND THE FORMATION OF THORTVEITITE, A RECONNAISSANCE SURVEY

By

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In their classical paper on the geochemistry of scandium V. M. GOLDSCHMIDT and CL. PETERS (1931) present a great deal of information about the scandium content of Norwegian minerals of varied geological origin. Also G. EBERHARD (1908 and 1910) used, among others, samples from this country for his investigations which demonstrated the common and widespread occurrence in the earth's crust of the element which had until then been regarded as very rare and scarce. Further data are given by I. OFTEDAL (1943), who was especially interested in the variations of the scandium content of biotite as a function of temperature, and the possibility of using this as a geological thermometer.

Thortveitite, the only known, and very rare, primary mineral of scandium occurs in some quantity in several pegmatite dykes in the Iveland—Evje district North of Kristiansand.[1]

[1] Thortveitite has been found in the following quarries: In Iveland: Steane, Frikstad; Tuftane (= Frikstad No. 3); Mannekleiv (= Håverstad No. 1); Eptevann No. 2; Knipan (first find of thortveitite, = Ljosland No. 4; and also a recently opened quarry about 30 m from the old one); Knapen, Birkeland (opened a few years ago); Slobrekka (= Frikstad No. 7); Frikstad school (about 150 m North of Frikstad schoolhouse, on a small hill between the main road and the road to Frikstad); Ivedal (= Ivedal No. 1); Torvelona (= Ljosland No. 14); Eretveit (= Ertveit No. 1); Birkelandjordet (just North of

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The reason for this is obscure. It may be recalled that V. M. GOLDSCHMIDT (1934) suggested that the scandium content of thortveitite may not originate from the pegmatite magma itself as scandium is not a characteristic element of acidic rocks; on the contrary it is enriched in basic rocks. The thortveitite-bearing pegmatites are always found in amphibolite, and he found it more reasonable to think that the pegmatite magma has extracted scandium from the surrounding amphibolites with a subsequent crystallization of thortveitite as a normal event during the later freezing of that magma. It is an interesting fact that the bed rock of the greater part of the very numerous pegmatites in the precambrian of Southern Norway is amphibolite (BARTH (1928)). If the theory outlined above is correct one would expect a higher content of scandium in the amphibolites surrounding the thortveitite-bearing pegmatites than in the amphibolites surrounding pegmatites without thortveitite. The data are too scanty for any very definite statement to be made. The few data available give, however, no indication of such a difference (OFTEDAL (1943) p. 205). An alternative explanation would be to postulate an unexplained property of the ,,magma'' or pegmatizing medium of a thortveitite-bearing dyke, which enables it to extract scandium more efficiently from the surrounding amphibolite than is the case with the pegmatizing medium of a pegmatite that does not carry thortveitite. Such a working hypothesis may be perfectly sensible, but would seem to be without any sound basis in observed facts. The present author has felt for some time that Goldschmidt's hypothesis is not substantiated by the knowledge about the pegmatites in the Iveland—Evje district, which has accumulated since it was offered for consideration.

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the Birkeland field East of the road, 100 m from Birkeland No. 1); Tjomstøl; In Evje: Landsverk No. 3 (= Beryl-bruddet = Hagebruddet); Unneland No. 2 (= Beryl-bruddet); and in Vegusdal: Vatne.

According to Mr. Olaf Landsverk, Iveland, the following approximate quantities of thortveitite have been produced from the several quarries: Steane 15—20 kgs, Tuftane 12—15 kgs, Mannekleiv 5—6 kgs, Eptevann 3—4 kgs, Knipan 3—4 kgs, Knapen 1 kg, Slobrekka 1/2 kg, Frikstad school 1/2 kg, Landsverk about 6 kgs, Unneland 1 kg, and from the others less than 1/2 kg. Altogether, the Norwegian production of thortveitite amounts to about 50 kgs, corresponding to not much more than 20 kgs of scandium metal.

As an attempt to get somewhat closer to the solution of the genetical problem of the thortveitite-bearing dykes, it seemed highly desirable to aquire further data on the scandium content of pegmatite minerals from the Iveland—Evje district as well as from elsewhere. The scandium determinations were undertaken by Professor Ivar Oftedal with usual generosity. I should like to take this opportunity to express my sincere thanks for all the help he has given me with these investigations as well as in other connections. The figures as presented in Table 1 are only semiquantitative in this sense of the word that the true values are supposedly between 2/3 and 3/2 of the given figures. The reader is referred to OFTEDAL's (1943) paper on scandium in biotites for an evaluation of the correctness of the method and for further details.

At the request of J. Schetelig a few spectrographic examinations were made by G. Eberhard of the content of scandium in minerals from four thortveitite-bearing dykes. An appreciable content of scandium in beryl is indicated (J. SCHETELIG (1922) pp. 84—85), and OFTEDAL (1943, p. 206) reports a content of about 10,000 ppm (1% Sc) in an ordinary green beryl from Ljoslandsknipan. As beryl is a fairly common mineral in Iveland, a content of scandium of that order of magnitude would even be of considerable practical importance and make such beryls a valuable source of scandium. Scandium determinations were therefore made of 57 beryls from Iveland and Evje and a number of other districts. Because of the similarity in crystal structure cordierites of varied geological histories from 9 different localities were also examined. Results are given in Table 1 and figure 1, b and c. Cordierites are low in scandium with approximately 10—20 p.p.m. Sc, while the analyzed beryls vary in scandium content from approximately 10 p.p.m. to 1000 p.p.m. (0.1% Sc).

The data reproduced in figure 1, b indicate very clearly that there is a tendency for beryls from thortveitite-bearing dykes to be richer in Sc than beryls from dykes with no thortveitite, as might be expected. It is a complication in this connection that several varieties of beryl may occur in one individual dyke, the beryls apparently belonging to different generations and varying stages of the formation of the pegmatite. If a list is extracted from Table 1 of beryls with less than 100 p.p.m. Sc from thortveitite-bearing dykes, it reads as follows:

Aquamarine Mannekleiv, Håverstad, Iveland	.20	p.p.m.
Aquamarine „The beryl quarry", Landsverk, Evje	.20	—
Aquamarine Landsverk 3, Evje	.20	—
Green beryl —	.50	—
Altered beryl —	.50	—

It is hardly a coincidence that not less than 3 of these 5 beryls are aquamarines, which are supposedly amongst the very youngest minerals of the dykes concerned. The aquamarine from „The thortveitite quarry" at Eptevand, however, has a scandium content of 300 p.p.m. The „normal" beryl from Mannekleiv, Håverstad, contains 500 p.p.m. scandium as compared to the 20 p.p.m. of the aquamarine from the same deposit. Of the three scandium-rich beryls from outside Iveland and Evje one is from Hitterø near Flekkefjord, and the two others from a nordmarkite pegmatite dyke at Byrud in Minnesund (V. M. GOLDSCHMIDT (1911) p. 56). The high scandium content, especially of the Byrud beryls, is rather surprising and would seem to warrant further investigations.

The fact that the minerals from thortveitite-bearing dykes are in general richer in scandium than the same minerals from dykes without thortveitite is convincingly demonstrated by the data for biotites given by OFTEDAL (1943). His data are reproduced in this paper as figure 1,a. Unfortunately 4 biotites only from thortveitite-bearing dykes have been analyzed, they contain from 500 p.p.m. to 1000 p.p.m. Sc, while all the 17 biotites from dykes without thortveitite are poorer in Sc with an average Sc content of less than 100 p.p.m.

Because of the similarity in ionic radii a high content of scandium might be expected in zirconium minerals. It is indicated by data published earlier that that is not so, and this is confirmed by further data presented in this paper, see Table 1 and figure 1, d. All the zirconium silicates which were analyzed contain very little scandium, approximately 10 p.p.m., except 2 zircons, which are both from the island of Seiland in Finnmark, one from a canadite pegmatite, and the other which is richer in Sc from a plumasite pegmatite (see BARTH (1927)). The identical location of the two zircons is hardly altogether accidental, but no comment can be offered at present as no other minerals from pegmatites on Seiland have been analyzed for scandium, nor is any other information available which would seem to be relevant.

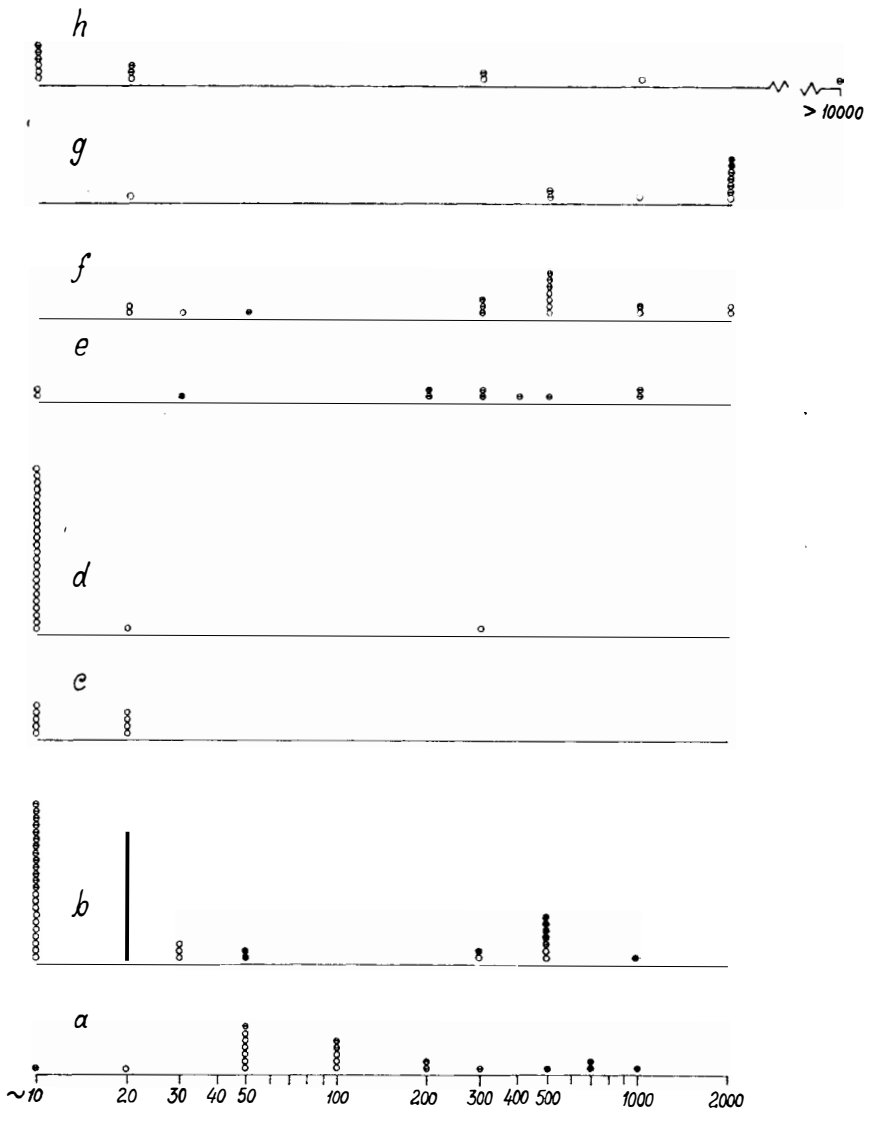

Fig. 1. Sc in p.p.m. in *a*: biotite (data from I. OFTEDAL (1943)), b: beryl, *c*: cordierite, *d:* zirconium silicates, *e:* ilmenite, *f:* columbite, *g:* ilmenorutile, and *h:* xenotine.

Filled circles: thortveitite-bearing deposits in Iveland and Evje. Circles with lines: deposits in Iveland and Evje which are not known to contain thortveitite. Open circles: deposits elsewhere in Norway.

Earlier publications give very limited information about the scandium content of ilmenites and columbites from pegmatite dykes, in fact only one scandium determination is available of a columbite from Ånnerud near Moss in Norway, containing 50 p.p.m. Sc_2O_3. Analyses of 11 ilmenites and 18 columbites are given in Table 1 and figure 1, e and f. They prove a significantly high content of scandium in these minerals with an average of 585 p.p.m. Sc in columbites and 435 p.p.m. Sc in ilmenites from pegmatite dykes.

Ilmenorutiles are higher in scandium than any other mineral investigated so far (see figure 1, g) with an average content of 1455 p.p.m. Sc. Also in the case of this mineral there is a clear tendency for a higher content of scandium in thortveitite-bearing dykes than in dykes without thortveitite, even if that tendency is not as pronounced as is the case with biotite.

Because of the fairly common occurrence of phosphates of the rare earth elements it seemed worth while to look for the chemically related scandium in pegmatite phosphate minerals.

With one exception the examined apatites are all very poor in scandium, and so are the wagnerites from the Bamble apatite deposits in spite of the similarity in ionic radii of Mg and Sc. In this connection it is worthy of notice that the one apatite with a higher content of scandium (500 p.p.m. Sc) is from the Ödegården apatite deposit in Bamble (W. C. BRÖGGER and H. H. REUSCH (1875)) while three analyzed wagnerites from the same deposit contain 10 p.p.m. Sc only.

Xenotimes are on the whole fairly poor in scandium (see figure 1, h), except one xenotime from the Omland pegmatite quarry in Evje which contains more than 1 percent Sc. The scandium content is not sufficiently high to influence the size of the unit cell of that mineral as shown by an X-ray powder diagram.

The few davidites from Iveland which were analyzed contain 200—500 p.p.m. Sc.

Magnetites do not seem to be appreciably enriched in scandium, even in the case of a magnetite from a thortveitite-bearing dyke (Ivedal, Iveland). The sample of magnetite from Mölland with 300 p.p.m. Sc was contaminated by ilmenite.

The aegirite (acmite) from the alkaline granite pegmatite (ekerite pegmatite) at Rundemyr, Eiker, is surprisingly low in scandium in

agreement with data published earlier by GOLDSCHMIDT and PETERS (1931, p. 265).

As mentioned above there is a clear tendency for minerals from thortveitite-bearing dykes in Iveland and Evje to be richer in scandium than the same minerals from dykes that do not carry thortveitite. In this connection it would seem of interest to examine if there is any difference in the scandium content of minerals from dykes without thortveitite from the Iveland—Evje district as compared to dykes (without thortveitite) from other districts. It appears from the following list that there is no obvious trend as the figures for biotite and ilmenorutile on the one side and beryl and columbite on the other are contradictory.

	Iveland—Evje district		Other districts	
Biotite	135	p.p.m. Sc	60	p.p.m. Sc
Beryl	40	—	60	—
Columbite	430	—	710	—
Ilmenorutile	1500	—	(1005)	—

(Figures cannot be given for ilmenite as the two samples from outside Iveland and Evje, which are poor in scandium are not from pegmatime dykes. The xenotime figures would be misleeding because of the exceptionally high scandium content of one sample, see figure 1, h.) Data are too few, but it may be tentatively concluded that there is no systematic difference in the scandium content of minerals from dykes without thortveitite in the Iveland—Evje district and from dykes in other districts.

In conclusion the relevant features which are apparent from the data presented in this paper and earlier data may be summarized as follows:

1. The bulk of the scandium content of granite pegmatites is contained in their iron minerals in complete agreement with the long established fact that the diadochy of scandium and divalent iron is the dominating factor in the geochemistry of scandium. Most important are the common pegmatite minerals biotite and ilmenite, while other minerals, as for example, columbite and ilmenorutile may have a higher content of that element. Allanite has not been analyzed, but may be of considerable interest in this connection.

2. Minerals from dykes with thortveitite are richer in scandium than the same minerals from dykes without thortveitite.

3. In the dykes that do not contain thortveitite there does not appear to be any systematic variation in the scandium content of the pegmatite minerals from one part of the country to another. Minerals from such dykes in ,,the thortveitite district'' of Iveland and Evje are not any richer in scandium than minerals from dykes in other districts.

4. It is indicated that the amphibolitic bed-rocks of the thortveitite-bearing dykes are not any richer in scandium than the amphibolitic bed-rocks of other dykes within or outside the Iveland—Evje district. More data are needed before this question can be definitely settled.

The content of thortveitite in certain dykes in the Iveland—Evje district, and the observed facts about these dykes are easily explained if it is assumed that the thortveitite-bearing pegmatites are poorer in divalent iron than normal. In the vast majority of pegmatite bodies the entire scandium content is found in the iron minerals. If, as a hypothetical experiment, the content of divalent iron in a pegmatite is decreased while the content of scandium is kept constant the content of scandium in the ever smaller amount of iron minerals will increase until a stage is reached when these minerals are saturated in scandium under the prevailing P—T—X-conditions. With a further decrease in iron, scandium will necessarily have to form a mineral or minerals of its own as the limit of solid solution is reached. If this hypothesis is correct, the thortveitite-bearing dykes should have less iron minerals like biotite and ilmenite than other dykes in the district with apparently closely similar geological histories. This may be so, but there are no data available to prove it, in fact it is the very crux of pegmatite research that it is in general well-nigh impossible to get reliable quantitative figures for the relative amounts of the pegmatite-forming minerals or for the chemical composition of the entire pegmatite mass. There is, however, a piece of circumstantial evidence for a deficiency in iron of the dykes concerned. It has been known for a long time that ilmenorutile[1] is a characteristic mineral of thortveitite-bearing dykes while it is a pretty rare mineral in other dykes of the district. With

[1] In the case of the Tuftan pegmatite rutile instead of ilmenorutile occurs together with thortveitite.

an excess of iron ilmenite is obviously the stable titanium mineral as demonstrated by its very common occurrence in pegmatites, and there is hardly much doubt that rutile or ilmenorutile can safely be regarded as indicators of a deficiency in divalent iron in a pegmatite containing these minerals. It is also worthy of notice that of the 15 thortveitite-bearing dykes in Iveland and Evje BJÖRLYKKE (1934) reports ilmenite from only two of them. Because of the generally high content of scandium in ilmenites, it would be of great value to have even semi-quantitative or subjectively evaluated data for the relative amounts of ilmenite and biotite in dykes with thortveitite as contrasted to dykes without thortveitite. Figures for the iron content of the garnets of those dykes would be of considerable interest, and the assumed deficiency in iron may even be reflected in the chemical composition of the micas. Unfortunately, no such data are available at present.

Table 1. Scandium content in p.p.m. Sc of 176 mineral samples.

Mineral	Locality	Sc in p.p.m.
Beryl:		
	(Emerald) Byrud. Minnesund. Eidsvoll	500
	Skarpnes. Øiestad. Aust-Agder	20
	St. Antoinette's mine. Straumsfjord	20
	Brudalen. Kviteseid. Telemark	20
	Aspedammen. Idd. Østfold	20
	Aspedammen. Idd. Østfold	20
	1050 m N. of Rørvik molybdenite mine. Hurum	30
	(Green crystal). Ånnerud. Near Moss	20
	(Colourless crystal). Ånnerud. Near Moss	20
	Halvorsrud. Råde. Østfold	10
	Buvasshei. Nisserdal. Telemark	20
	(Yellow crystal). Elvestad. Råde. Østfold	20
	(Light red crystal). Høydalen seter. Tørdal	20
	(Inner part of large crystal). Southern Ski. Rakkestad. Østfold	20
	Berby. Østfold	20
	Ødegårdsletten. Våler. Østfold	20
	Halvorsrud. Råde. Østfold	20
	(Emerald). Byrud. Minnesund. Eidsvoll	300
	Årvoldskåven. Vansjø. Near Moss. Østfold	30
	(Yellow crystal). Håvåsen. Iveland	10
	Halvorsrud. Råde. Østfold	10
	Ånnerud. Near Moss	20
	Aker. Råde. Østfold	10

Mineral	Locality	Sc in p.p.m,
	Vatvedt. Rakkestad. Østfold	10
	Boksjøen mineral mine. Idd. Østfold	10
	Southern quarry. Vådne. Iveland	10
	Frikstad. Iveland	10
	Eitland. Austa. Vest-Agder	10
	(Yellow, clear crystal). Støledalen. Iveland	10
	Bjertnes feldspar quarry. Krødsherad. Buskerud	10
	«The beryl quarry». Evje	20
	(Aquamarine). «The thortveitite quarry». Eptevann. Iveland	300
	(Aquamarine). Mannekleiv. Håverstad. Iveland	20
	Hitterø. Near Flekkefjord	500
	"The thortveitite dyke". Ljoslandsknipa. Iveland	1000
	Heia. Håverstad. Iveland	10
	"The thortveitite quarry". Steane. Nedre Frikstad. Iveland	500
	(Aquamarine). "The beryl quarry". Landsverk. Evje	20
	8. Dalane. 2. Iveland	10
	(With topaz). By the tarn, Nedre Frikstad. Iveland	10
	(Yellow crystal). Steli. 3. Tveit. 3. Iveland	10
	(Yellow crystal). 54. Mølland. 3. Iveland	10
	Tveit. Iveland	10
	(Blue crystal). Mannekleiv. Håverstad. Iveland	500
	Tveit. Iveland	10
	"The beryl quarry". Håverstad. Iveland	500
	(Piece of a crystal weighing 2200 kgs). Håvåsen. Eptevann. Iveland	10
	(Large crystal). Rona. Randøysundfjord. Near Kristiansand. Vest-Agder	10
	Ollestad quarry. Heskestad. Rogaland	10
	Ljosland. Knipan. Iveland	500
	(Aquamarine). Håvåsen. Eptevann. Iveland	10
	Rona. Randøysundfjord. Near Kristiansand. Vest-Agder	10
	Stetind feldspar quarry. Tysfjord. Nordland	30
	Knipan 2. 30 m from Knipan 1. Iveland	500
	(Aquamarine). Landsverk 3. Evje	20
	Landsverk 3. Evje	50
	(Altered crystal). Landsverk 3. Evje	50
Cordierite:		
	Rød station. Risør	10
	Kammerfors. Kragerø	10
	Bromsbo mine. Tvedestrand	10
	Frøina. Søndeled	20
	Sandøkedal	10
	Bjordammen. Bamble	20

Mineral	Locality	Sc in p.p.m.
	Lindland. Søndeled	20
	Risø feldspar quarry. Kragerø	20
	Klovstenen. Østebø. Søndeled	10
Zircon:		
	Syenite pegmatite east of Herregårdsdammen. Larvik	10
	Stavern. (= Fredriksvern). Near Larvik	10
	Østerholtheia. Gjerstad	10
	Barkevik. Langesundsfjord	10
	Southern precipice of Stokø. Langesundsfjord	10
	Mørjefjord. East of Langesundsfjord	10
	Small canadite pegmatite on the farm-yard of Southern Skarvbergnes. Seiland. Finnmark	20
	Tveitdalen	10
	Plumasite pegmatite. SW of Skarvvann. Seiland. Finnmark	300
Eucolite:		
	Arøsund. Langesundsfjord	10
	Arøskjær. Langesundsfjord	10
	Brattholmen. Langesundsfjord	10
	Sandø. Langesundsfjord	10
Hiortdahlite:		
	Southern part of Store Arø. Langesundsfjord	10
Eudialyte:		
	Brattholmen. Langesundsfjord	10
	Langesundsfjord	10
Catapleiite:		
	Arø. Langesundsfjord	10
	Låven. Langesundsfjord	10
	Eikaholmen. Langesundsfjord	10
Rosenbuschite:		
	Låven. Langesundsfjord	10
Mosandrite:		
	Låven. Langesundsfjord	10
	Langesundsfjord	10
Johnstrupite:		
	Barkevikskjær. Langesundsfjord	10
	Skudesundskjær. Langesundsfjord	10

Mineral	Locality	Sc in p.p.m.
Wöhlerite:		
	Skudesundskjær. Langesundsfjord	10
	Barkevikskjær. Langesundsfjord	10
Ilmenite:		
	Hilltveit. Iveland	200
	Landsverk. Evje	200
	Tveit. Iveland	30
	South of the marsh Knipan. Ljosland 11. Iveland	1000
	Road metal quarry at Valleveien. Ødegården. Bamble. Telemark	10
	Mølland and Ljosland. Iveland	300
	Highest point of Dillingø near Moss. Østfold	10
	(Tabular). Landsverk. Evje	400
	Bjørnekra. Årsland. Evje	300
	Iveland	500
	(With some hematite). Ljosland. Iveland	1000
Columbite:		
	Øvre Gjerstad	20
	Håverstad. Iveland	500
	Klep. Iveland	500
	Eptevann. Iveland	300
	Tveit. Iveland	1000
	Thor's mine. Øvre Vats. Rogaland	20
	Ljoslandsåsen. Iveland	500
	Stelibruddet. 3 Tveit 3. Iveland	300
	63 Ljosland 1. Ljoslandjordet 1. Iveland	300
	Tangen quarry. Kammerfosselv near Kragerø	30
	Lorebø near Aker. Råde. Østfold	2000
	Skråtorp. Råde. Østfold	500
	Vintergruben. Ånnerud near Moss. Østfold	1000
	Rygge. Near Moss. Østfold	500
	Elvestad. Råde. Østfold	2000
	Karlshus. Råde. Østfold	500
	Halvorsrud. Råde. Østfold	500
	Heia. Håverstad. Iveland	50
Ilmenorutile:		
	Ljosland. Iveland	2000
	Lundekleven. Evje	500
	Tveit. Iveland	500
	"The thortveitite quarry". Eptevann. Iveland	2000
	Tjønstøl. Iveland	2000
	"The thortveitite quarry". Ljoslandsknipa	2000

Mineral	Locality	Sc in p.p.m.
	Tuten 2. Håverstad. Iveland	2000
	Håverstad 1. Iveland	2000
	Monbua. Tromøya. Aust-Agder	2000
	Ausel. Near Tvedestrand. Aust-Agder	1000
	Ramskjær. Søndeled. Aust-Agder	20
Xenotime:		
	Holer. Råde. Østfold	20
	"Eikeråsen". Eretveit. Iveland	10
	Omland. Evje.	10000
	Ljosland. Iveland	20
	Høgtveit. Evje	300
	Narestø. Arendal. Aust-Agder	10
	Frikstad. Iveland	10
	Gryting. Gjerstad	1000
	1. Tveit. 1. "Eliasgruva". Iveland	10
	Rasvåg. Hitterø. Near Flekkefjord. Vest-Agder.	300
	Smålian. Frikstad. Iveland	20
	Østre Moland. Aust-Agder	10
	Hummerli. Hitterø. Vest-Agder	10
Apatite:		
	Risø. South of Langø. Near Kragerø. Telemark	10
	Husås. Søndeled. Near Risør. Aust-Agder.	10
	Skarvstøl. Gjerstad. Aust-Agder	10
	East claim. Holtet mine. Bamble. Telemark	10
	Kjørstad feldspar quarry. Bamble. Telemark	10
	Karlshus. Råde. Østfold	10
	Fennefosheien. Hornnes. Aust-Agder	10
	"The thortveitite quarry". Håverstad. Iveland	10
	Knipan. Ljosland. Iveland	10
	Birkeland. Iveland	10
	Håverstad. Iveland	10
	Frikstad. Iveland	10
	Havredal. Bamble. Telemark	10
	(Red) Ødegården. Bamble. Telemark	10
	(Grey) Ødegården. Bamble. Telemark	10
	(Green) Ødegården. Bamble. Telemark	500
Wagnerite:		
	(Grey) Ødegården. Bamble. Telemark	10
	Ødegården Bamble. Telemark	10
	Ødegården. Bamble. Telemark	10
	Havredal. Bamble. Telemark	20

Mineral	Locality	Sc in p.p.m.
	Havredal. Bamble. Telemark	10
	Havredal. Bamble. Telemark	10
	Skaugen. Bjørdammen. Bamble. Telemark	10
Davidite:		
	Tuftan. Iveland. (Analyzed material)	500
	Birkeland quarry. Iveland	200
	Feldspar quarry in Iveland	500
Magnetite:		
	Ånnerud near Moss. Østfold	10
	Frøyså. Iveland. (With gadolinite)	20
	(Tabular, with ilmenite impurities) Mølland. Iveland	300
	Ivedal. Iveland	20
Acmite:		
	Rundemyr. Eiker. Vestfold	20

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