

markedly gabbroic. The analysis, however, shows a rock which, in its high alumina and rather low iron and magnesia, is much closer to anorthosite than to gabbro. It, nevertheless, represents an intermediate stage in every single constituent. It was chosen for analysis because of its freshness and in spite of the fact that it appeared to be the most anorthositic portion of the Rand hill body and therefore not a fair representative of its general character. The main rock is a more strictly intermediate one, and the same thing is true of the Keeseville rock and of much of the border of the great anorthosite mass of Franklin county.

As close a calculation as can be made of the mineral composition of the anorthosite gabbro of analysis 3, without analysis of the component minerals, indicates some 70% of feldspar, made up of orthoclase 7.5%, albite 29.75% and anorthite 32%. In addition there are 11.75% of garnet, 7% of augite, 4% of hornblende, 2.5% of magnetite and 5% of quartz. The free quartz is specially noteworthy in so basic a rock, is usually to be found in the anorthosite gabbro of the region, and recalls the quartz norites described by Kolderup as associated with anorthosite in the Ekersund-Soggendal district in Norway. For comparative purposes four of his analyses are appended.

	1	2	3	4	5
SiO ₂	53.42	52.61	52.21	53.28	51.62
Al ₂ O ₃	28.36	27.15	19.24	23.3	24.45
Fe ₂ O ₃	1.8	4.05	10.46	7.55	1.65
FeO					5.3
MgO31	1.55	2.36	3.02	1.21
CaO	10.49	9.96	7.28	5.01	9.97
Na ₂ O	4.82	4.53	3.48	3.9	3.49
K ₂ O84	.78	1.09	1.51	1.27

1 Anorthosite (labradorit), Ogne, Norway. Kolderup analyst. Die Labradorfelse des westlichen Norwegens. Bergens museums aarbog. 1896. p.20.

2 Anorthosite norite (labradoritnorit), Ekersund. Kolderup analyst. p.20.

3 Quartz norite, Soggendal. Kolderup analyst. p.16.

4 Quartz norite, Theingsvaag bei Ekersund. Kolderup analyst. p.16.

5 Anorthosite gabbro, Carnes's quarry, Rand hill.

It is to be noted that Kolderup's quartz norites are more typical for the rock than the one analyzed from the Adirondacks, that approaching anorthosite more closely and being more like his