

3. The Saguenay anorthosite area.
4. Various other anorthosite areas.
  - (a) In Labrador.
  - (b) In Newfoundland.
  - (c) On the north shore of the Gulf of St. Lawrence.
  - (d) On the north shore of the River St. Lawrence.
  - (e) In the State of New York, U. S. A.
  - (f) On the east coast of Lake Huron.
  - (g) Elsewhere in Canada.
5. Age of the anorthosite intrusions and their relation to the margin of the archæan protaxis.
6. Occurrence of similar anorthosites in other countries.
7. General summary of the results.
8. Tables of analyses.
9. Literature relating to the anorthosites of Canada.

The present paper is based upon a study of the Canadian anorthosites in the field, a work which was carried out for the Geological Survey of Canada and occupied five summers, as well as upon the examination of a large number of thin sections of these rocks and a careful study of all the literature relating to them.

The petrographical part of the work was done for the most part in the Mineralogical Institute of the University of Heidelberg, and I take the liberty of expressing my hearty thanks to my teacher, Professor Rosenbusch, for his assistance and advice during the progress of the work.

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## I.—GENERAL STATEMENT CONCERNING THE GEOLOGY OF THE LAURENTIAN.

The nucleus of the North American continent consists, as is well known, of a large area of Archæan rocks which lie, for the most part, in the Dominion of Canada, and occupy an area of not less than 2,031,000 square miles. They form what Suess<sup>1</sup> calls "the Canadian shield" as well as the more mountainous district along the coast of Labrador.

<sup>1</sup> Suess, *Das Antlitz der Erde*, Bd. II., p. 42.