DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

Comprehensive Bibliography on Mineralized and Unmineralized Mafic-ultramafic Intrusions in Scandinavia

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These bibliographies have been compiled at the U.S. Geological Survey, Menlo Park, California, under the auspices of Project 161 of the International Geological Correlation Program entitled "Sulfide deposits in mafic and ultramafic rocks." They are part of a series of bibliographies being compiled for the entire world, and are considered to be complete through 1985.

The bibliographies were begun by searching the computerized data bases of scientific literature referred to as GeoRef (American Geological Institute) and CA Search (Chemical Abstracts) with two search strategies:

A + (B or C or D or E) + F

or

G + F

where

A = nickel or cobalt or platinum or pentlandite
B = mineralization or ore deposit or dissemination or mine
C = ultramafic or ultrabasic or dunite or perioditite or harzburgite
D = gabbro or anorthosite or norite
E = economic geology
F = a geographic region
G = layered intrusion or cumulate

With this point of departure, the bibliographies were independently worked on by Rognvald Boyd of the Geological Survey of Norway, Gunnar Nilsson of the Geological Survey of Sweden, Heikki Papunen of the University of Turku, Finland, and Gerald Czamanske of the U.S. Geological Survey. Most of the citations were not obtained from the data bases. The Scandinavian geologists have translated all titles, and many of the references have been briefly annotated. An essential reference for the student of Scandinanvian Ni-Cu deposits is Geological Survey of Finland Bulletin 333, "Nickel-copper deposits of the Baltic Shield and Scandinavian Caledonides," published in 1985.

Nickel ores of the Outokumpu complex in Finland have been included in this bibliography despite the fact that these ores are not magmatic in origin. The Vuonos mine of the Outokumpu complex produced nickel sulfide ore in the 1970's. The complex at Outokumpu is composed of hydrothermally altered ultramafic rocks (serpentinites, carbonate rocks, and cherts as alteration products) associated with massive volcanogenic Cu-Zn-Co-pyrite deposits and separate nickel sulfide disseminations. Nickel in the stringer sulfides is considered to have originated from the ultramafic body and to have been redistributed and accumulated as sulfides during hydrothermal alteration. References to Outokumpu in this bibliography either are general references to the deposit or mention the nickel occurrences.

The bibliography on unmineralized mafic intrusions complements that for known mineralization and provides the researcher with contrast and the prospector with potential. Specifically excluded from these bibliographies are references related to ophiolites and laterites.

Because large bibliographies on mafic intrusions in other parts of the world were being compiled concurrently, time has not been available for inspection and verification of many of the citations; for this we apologize. Users of the bibliography are encouraged to report errors to Gerald K. Czamanske so that they may be corrected. In a similar spirit, users are encouraged to send notice of reports published prior to 1986 that have not been included. Consistency of citation style has benefited from review by George Havach of the U.S. Geological Survey. The efforts of Pauline C. Bennett during early stages of compilation are gratefully acknowledged.

This report is being issued in two forms, representing slightly differing versions. Version A, issued as paper copy, incorporates all special diacritics. Version B, issued as an IBM-compatible diskette, affords users the great benefit of an online bibliography, but is formatted in the standard ASCII character set because of anticipated hardware and software problems associated with foreign alphabets.

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