

1939

Characteristics of Heavy Accessory Minerals in a Pre-Cambrian Granite Gneiss

C. S. Gwynne
Iowa State College

Let us know how access to this document benefits you

Copyright ©1939 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Gwynne, C. S. (1939) "Characteristics of Heavy Accessory Minerals in a Pre-Cambrian Granite Gneiss," *Proceedings of the Iowa Academy of Science*, 46(1), 251-251.

Available at: <https://scholarworks.uni.edu/pias/vol46/iss1/63>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

OCCURRENCE OF CERTAIN SMALL FOSSIL PLATES
IN THE MAQUOKETA SHALE OF IOWA

R. C. SPIVEY

Small calcareous plates, possibly from Asteroidea or other Echinodermata, occur in the Maquoketa shale of Iowa. These plates all have similar characteristics, but vary in their minute structures, and the variations apparently have some stratigraphic significance.

DEPARTMENT OF GEOLOGY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

PERMIAN AMMONOID ZONES

A. K. MILLER AND W. M. FURNISH

Ammonoids are among the best of index fossils and are particularly useful for intercontinental correlations. Five major ammonoid zones are recognized in the Permian, all of which are of world-wide significance. In Texas and northern Mexico the Permian is particularly well developed and is abundantly fossiliferous, and the section in this area serves well as a standard for the rest of the world.

DEPARTMENT OF GEOLOGY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

CHARACTERISTICS OF HEAVY ACCESSORY MIN-
ERALS IN A PRE-CAMBRIAN GRANITE GNEISS

C. S. GWYNNE

Heavy accessory minerals have been separated from specimens of granite gneiss taken in a traverse across the Beartooth Plateau. Prominent accessories are biotite, magnetite, ilmenite, zircon, apatite, epidote and titanite. Characteristics of zircon, apatite and titanite from these samples are described.

DEPARTMENT OF GEOLOGY,
IOWA STATE COLLEGE,
AMES, IOWA.