abnormal interference colors in reddish brown and blue. (−)2V = 40°−45°±. Indices of refraction: $\alpha=1.658$, $\beta=1.682$, $\gamma=1.685$. (Larsen and Berman[5] record: $\alpha=1.658$, $\beta=1.690$, $\gamma=1.685$. The limit of experimental error of the writer's determinations is probably about 0.003.) Pleochrosim: X = colorless, Y = very pale greenish yellow, Z = pale greenish yellow.

It is hoped that with further study of the schroeckingerite and of the other uranium minerals whose manner of occurrence is similar, especially in the Kinkel's quarry pegmatite and other southern New England pegmatites, something may be learned concerning the nature of their interrelations.

The writer is indebted to Dr. Edward H. Watson and Dr. Dorothy Wyckoff of Bryn Mawr College for their assistance in checking the above results and to Miss S. Grace Hower of Bedford, N. Y., for collecting additional material.

[5] Larsen, E. S., and Berman, H., *The Microscopic Determination of the Nonopaque Minerals*, 2nd edit., *U.S.G.S. Bull.* **848**, 1934.

BOOK REVIEW

DER LÖSS UND SEINE GEOTECHNISCHEN EIGENSCHAFTEN, Scheidig, Alfred. 233 p. with 132 text figs. and 6 tables. *Dresden* and *Leipzig*, Th. Steinkopf, **1934.** (Bound, RM 20.)

It is gratifying to see that someone has undertaken the arduous but useful task of summarizing most of the available information on the much debated loess problem. The magnitude of the task can be inferred from the author's bibliography which contains no less than 580 references.

It is true that this summary was primarily made as a background for the main topic which treats of loess from the standpoint of the civil engineer, as stated in the subtitle. Nevertheless, fully one-half of the text, comprising two of the three main chapters is sufficiently general in nature to interest the geomorphologist, sedimentary geologist, pedologist and geographer.

The first part (pp. 3–72), under the general title of "geological and geographical principles," discusses the characteristics of "true" loess, the distribution of loess deposits on the earth's surface, morphology of loess-landscapes, genesis, classification and economic importance of loess. Numerous sketch-maps and diagrams illustrate the description of occurrences in the various countries and many half-tones accompany the discussion of typical loess-landscapes. [Nothing is definitely known concerning the origin of the name "loess" beyond the fact that it was in use early in the 19th century, as a folk-term for particular kinds of soils along the Middle Rhine. Its relation to the German words for loose (=lose) and loosening (=lösen) is merely suggested. Neither can a strict definition of loess be given, as yet; there are no less than 20 hypotheses which have been proposed for its mode of origin. The author considers it one of the most important tasks of loess research in the near future to formulate a definition that will satisfy all parties concerned!]

The second part (pp. 73–124) entitled "physical properties of loess" treats of such divers topics as mineralogical, chemical and granular (mechanical) composition; structure, porosity, plasticity, permeability, and behavior toward water, varying loads, frost, etc. The mineralogical composition is accorded only five pages, a reflection of the lack of information available. Quartz is always predominant and averages 60%–80% of the total mineral matter. This accounts for the fact that loess never weathers into fat clays, but always remains lean sandy loams with little clay (8%–15% on the average). Next in importance are feldspars and lime carbonates which may form the well-known lime concretions, although lime free loess is also found. No less than 54 different minerals have been reported from a Chinese loess, but the great need for a systematic comparative petrographical study of the world's loess deposits is emphasized. From the mechanical analyses it is clear that loess and its congeners are all characterized by the preponderance of the fraction 0.05–0.01 mm. and the absence of the colloidal fraction, less than approximately 0.001 mm. in diameter.

The third part (pp. 125–204) under the title "loess and geotechnics" is devoted to the engineering applications of the foregoing discussions—a subject which seems to have been largely overlooked by engineers. It treats, in turn, of the problems encountered in using loess for structural foundations, for hydraulic purposes, for water supplies and for technological purposes. A topical and a geographic index, besides the lengthy bibliography, referred to above, conclude this monograph, of which the publication was eminently justified.

M. W. Senstius

PROCEEDINGS OF SOCIETIES

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

Anniversary Meeting, November 1st, 1934

The following were elected officers and members of the Council:—

President, Sir Thomas H. Holland; *Vice-Presidents*, Mr. Arthur Russell, Sir William H. Bragg; *Treasurer*, Mr. F. N. Ashcroft, *General Secretary*, Mr. W. Campbell Smith; *Foreign Secretary*, Prof. A. Hutchinson; *Editor of the Journal*, Dr. L. J. Spencer; *Ordinary Members of Council*, Prof. P. G. H. Boswell, Prof. H. L. Bowman, Dr. L. Hawkes, Mr. J. B. Scrivenor, Mr. T. Crook, Dr. W. F. P. McLintock, Mr. L. R. Wager, Dr. A. K. Wells, Prof. A. Brammall, Mr. C. W. Mathews, Dr. P. T. Phemister, and Dr. H. H. Thomas.

Dr. L. J. Spencer: *Murnpeowie (South Australia), a granular type of meteoric iron.* A mass found in 1909 weighing 2520 lb. is preserved in the School of Mines, Adelaide. Study of an etched slice shows remnants of an original lamellar octahedral structure from which granular kamacite has been developed by heat treatment of the mass. The grains of kamacite are irregular in outline and orientation and show well marked Neumann lines. A narrow, finely granular zone on the outside of the mass shows the effect of another and later heat treatment during the flight of the meteorite through the earth's atmosphere.