# VALIDATION OF *PEDINOCYCLUS* AND *QUINQUERHABDUS*, NEW CALCAREOUS NANNOPLANKTON GENERA<sup>1</sup>

### DAVID BUKRY

U. S. GEOLOGICAL SURVEY, LA JOLLA, CALIFORNIA

and

#### M. N. BRAMLETTE SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA

Validation of the names of these two calcareous nannoplankton genera is necessary because generic diagnosis was not given in Bukry and Bramlette (1969) and because a proposed new genus name, *Leptodiscus*, has been determined to be preoccupied by a dinoflagellate (*Leptodiscus* Hertwig, 1877). We thank Dr. Alfred R. Loeblich, Jr., for bringing this to our attention.

## PEDINOCYCLUS Bukry and Bramlette, n. gen.

Description: Circular coccoliths constructed as a single thin, nearly flat shield, composed of slightly inclined to radial elements that are not clearly imbricate. Central opening relatively small.

Type species: Leptodiscus larvalis Bukry and Bramlette, 1969, Tulane Studies Geology and Paleontology, 7 (3/4), p. 134, pl. 2, figs. 8–11.

*Remarks*: Little imbrication of the elements of the single thin, flat shield distinguish *Pedinocyclus* from the individual

<sup>1</sup> Publication authorized by the Director, U. S. Geological Survey.

shields of Cyclococcolithus Kamptner, 1954, or Calcidiscus Kamptner, 1950.

## QUINQUERHABDUS Bukry and Bramlette, n. gen.

*Description*: Pentaliths with five long, blade-like elements tapering abruptly upward from the heavy and centrally depressed base. The characteristic optical orientation of the five segments in basal view shows the typical orientations of braarudosphaerids, although not clearly because of the high upward taper.

*Type species: Quinquerhabdus colossicus* Bukry and Bramlette, 1969, Tulane Studies Geology and Paleontology, 7 (3/4), p. 138, pl. 3, figs. 1–4.

*Remarks*: The abrupt taper of blades from the pentalith base to a pointed tip distinguishes *Quinquerhabdus* from species of *Braarudosphaera* Deflandre, 1947, and *Micrantholithus* Deflandre, 1950.

#### Reference

BUKRY, D., and M. N. BRAMLETTE, 1969, Some new and stratigraphically useful calcareous nannofossils of the Cenozoic: Tulane Stud. Geol. Paleont., v. 7, p. 131–142.

April 12, 1971

## RECENT BOOK

INTRODUCTION TO MINERALOGY, by Carl W. Correns. Published by Springer-Verlag, New York Inc., 1969, xii + 484 pp., illus., \$12.40

This is a comprehensive text in Mineralogy at the introductory level, including the basic principles of crystallography, petrology and geochemistry. The book is divided into three parts: I—Crystallography, including crystal chemistry, crystal physics, structural mineralogy and crystal growth; II—Petrology, including processes of magmatism, weathering, sedimentation, and metamorphism as well as geochemical aspects of the structure of the earth and the distribution of the elements; and III—in which the descriptive mineralogy and crystallography are summarized with crystallographic, crystal chemical, mineralogical, and petrographic tables (including chemical analyses). The text is well illustrated with drawings, photographs and photomicrographs.