**Discolithus octocentralis** Stover, 1966

**Description:**

The coccoliths are elliptical in outline in proximal or distal view. The rim is smooth and of medium and uniform width. The base plate is complete, is arched distally, and appears granular in bright field illumination. Under crossed nicols, the base plate consists of a mosaic of eight wedge-shaped, radially disposed blocks. The extinction line curvature is sinistral across the rim in distal view. Length 8–12 μ, width 6–8 μ, height about 2 μ.

**Remarks:**

Comparison: *Discolithus octocentralis* differs from *D. segmentatus*, n. sp., in having a smooth rim of equal width and in lacking a proximal flange.

Remarks: The crystallographic orientation of the components forming a wedge-shaped piece are similarly oriented, and therefore each is nearly ortholithic. The crystallographic axes of components in each piece are oriented the same or nearly the same in diagonally opposite pieces, as evidenced by the alternating light and dark pattern of the base plate. Pieces that are dark under crossed nicols remain relatively dark upon rotation of the stage, a fact suggesting that the C-axes of the submicroscopic components forming these pieces are nearly vertical, whereas the C-axes of components in pieces that appear bright are oblique when the coccoliths are seen in proximal or distal view. The alternating light and dark mosaic is shown most clearly when the axes of the coccolith are parallel to the vibration directions of the microscope. Division of the base plate into eight wedge-shaped parts is a distinctive feature for a group of fossil coccoliths. This character has been observed in Cretaceous specimens of *Discolithus octocentralis*, *D. segmentatus* and *Arkhangelskiella cymbiformis* (see Bramlette and Martini, 1964, pl. 1, figs. 4, 8), and can be distinguished in Bramlette and Sullivan’s (1961) photomicrographs of the Eocene forms *Coccolithes cribellum* and *Coccolithites* sp.
Type level:
Campanian.

Occurrence: Santonian-Campanian.

Type locality:
Actinocamax quadratus beds, north side of Seine River at Quartiers-sur-Ville, France; Campanian (Senonian); chalk (sample 1). Offaster pilula beds, north end of quarry at Sens, France; Campanian; chalk (sample 2).

Depository:

Author:
Stover L. E., 1966, p. 143; pl. 3, figs. 1a–c, 2; pl. 8, fig. 18.

Reference: