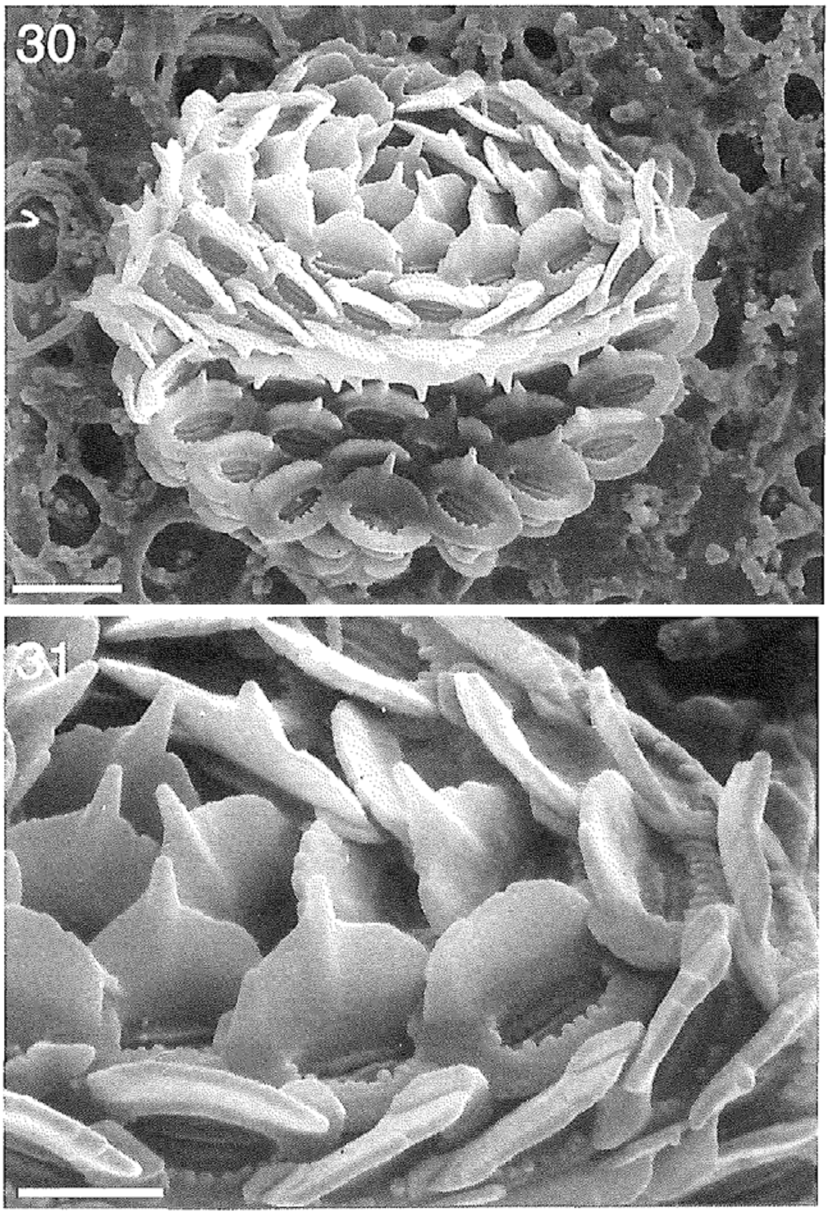
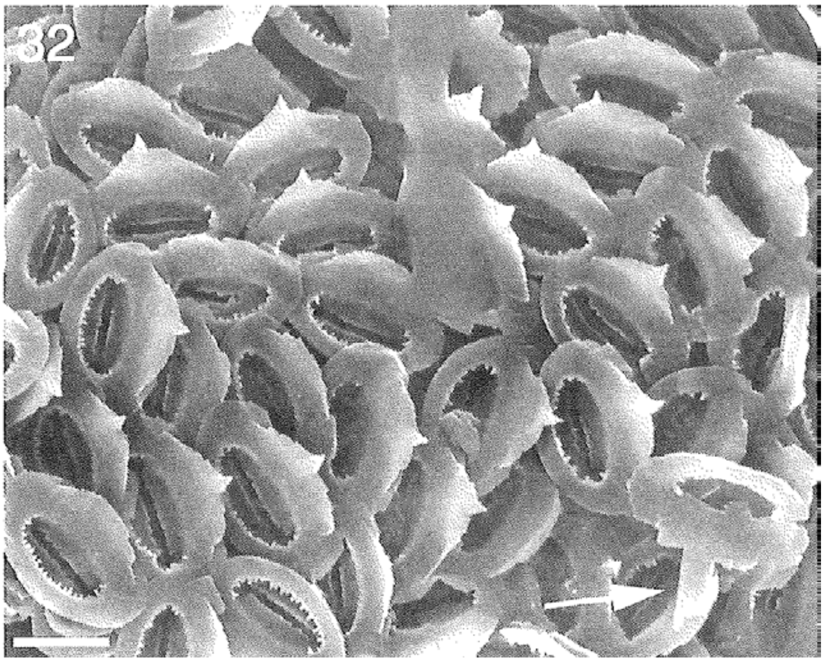
4. Alisphaera gaudii Kleijne et al. (2002)





For fig. 30, scale bar=2μm
For figs 31, 32, scale bars=1μm
Figs 30-32

References: Okada & McIntyre *partim* (1977, p. 18, pl. 6, fig. 8, as *A. unicornis);* Nishida *partim* (1979, pl. 15, fig. la, as *A. unicornis);* Winter & Siesser *partim* (1994, fig. 90B, by C. Samtleben, as *A. unicornis).*

Excluded References: *Alisphaera unicornis* Okada & McIntyre *partim* (1977, p. 18, pl. 6, fig. 7); *A. unicornis sensu* Nishida partim (1979, pl. 15, fig. 1b); *A. unicornis sensu* Winter & Siesser *partim* (1994, fig. 90A).

Coccosphaera subglobosa, constans ex c. 100 coccolithis dimorphis atque varimorphis. Coccolithi ostendunt formam variantem fimbriarum distalium extensionis, quae vs polum apicalem vergent. Prope polum antapicalem, pars latior fimbriarum distalium extenditur in extensionem alaeformem obtusam et oblique elevatam, fimbriis continuis circum aream mediam. Ad polum apicalem, pars fimbriarum oblique levat et extenditur, fimbriis non continuis. In tres quartae partes coccolithorum fimbriae extensae ferunt dentem inconcinnum praeacutumque, dum potest etiam terre extensionem forma inconstante. Coccolithi sine hac extensione praeter alifonnem partem accidunt forte in coccosphaera. Area media coccolithi fissuram flex- uosam modo dicta anglice 'zigzag' nodosque habet. Magnitudo: coccosphaera diametro c. 11-12 μm; coccolithi 1.6-2.0 μm longi, 1.3 μm lati.

Holotype: Negative A70/15 (Fig. 32), deposited at the Nationaal Herbarium Nederland, Universiteit Leiden branch (L), The Netherlands.

Type Locality: western Mediterranean Sea, depth 0-5 m (StationGx-192; 36°53'6N, 2°11'2E; 26 July 1985).

Etymology: The coccolith structure reminds of Gaudi's architecture.

Coccosphere subspherical, consisting of *c.* 100 dimorphic and varimorphic coccoliths (Fig. 30). Coccoliths show a variable morphology of the distal flange extension, which is directed toward the apical pole (Figs 30-32). Near the antapical pole, the wider side of the distal flange is extended into a blunt, wing-like, obliquely raised structure, and the flange is continuous around the central area (Fig. 32). Toward the apical pole, part of the flange is obliquely raised and extended, and the flange is discontinuous (Fig. 31). In three quarters of the coccoliths, the extended flange bears an asymmetrical, sharply pointed tooth, and it may also bear an extension of irregular shape (Fig. 32). Coccoliths without this protrusion on the wing-like structure occur randomly on the coccosphere. The coccolith central area has a jagged, zigzag fissure and nodules (Figs 31-33). Dimensions: coccosphere diameter *c.* 11-12 μm; coccoliths 1.6-2.0 μm long, 1.3 μm wide.

Remarks: The description of this species is also based on a specimen from the Equatorial Atlantic (Figs 30, 31) and one from the Pacific (Nishida 1979, pl. 15, fig. 1a). These sub-spherical coccospheres measure *c.* 10-12 μm along the long axis.

Distribution: (fig. 14): Mediterranean Sea (one specimen); Equatorial Atlantic (one specimen recorded by C. Samtleben; two specimens, depth 10 and 25 m, found by A. Kleijne, unpublished results); Pacific.

Kleijne, A., Jordan, R.W., Heimdal, B.R., Samtleben, C., Chamberlain, A.H.L. & Cros, L. (2002). Five new species of the coccolithophorid genus *Alisphaera* (Haptophyta), with notes on their distribution, coccolith structure and taxonomy. *Phycologia,* **40(6):** 583-601.