Fig. 1. Holotype; dimorphic coccosphere with very ornamented apical fragarioliths and body coccoliths with top structures that resemble origami paper boats. NW Mediterranean, Lat. 40°40.3 N, Long. 2°52.0 E, at 50m depth.

Fig. 2. Detail showing a fragariolith (centre left) with rows of crystallites forming ‘spines’ along the distal part of the blade, the central one being the longest. Several ornamented calyptrolith-like body coccoliths are figured, some in proximal view, showing a tear in the central part of the base plate, and others in distal and lateral view, showing a basal ring and columns of crystallites supporting the concave distal top with the pointed triangle-like central structure. NW Mediterranean, Lat. 40°40.3 N, Long. 2°52.0 E, at 50m depth.

Fig. 3. Coccosphere showing well formed body calyptroliths and several collapsed fragarioliths (centre bottom). NE Atlantic, Lat. 55°40.01 N; Long. 7°46.00 W, at 1 m depth.

Fig. 4. Detail of fig. 3 showing the distal part of body calyptroliths. Notice the columns of three crystallithes high supporting the distal structure.

Anthosphaera sp. type A (very ornamented; sp. nov. origami?), Cros 2001, p. 81, pl. 57, figs 1-2.

Anthosphaera sp. type A (origami art), Cros and Fortufio, 2002, p. 60, fig. 88A

Anthosphaera origami sp. nov. (nomen nudum), Cros, 2004, p. 26, fig. 1.

Anthosphaera origami sp. nov. McGrane, 2007 (unpublished PhD thesis so not an effective publication, ICN Art 29), p. 243, pl. 25, fig. 1-6

**Diagnosis:** Coccosphere dimorphic, bearing holococcoliths; the circumflagellar coccoliths are fragarioliths. They consist of a proximal rim surmounted by an ornamented blade, which ends, distally, in spines-like rows of crystallites. The body coccoliths present a proximal flat rim, a ring of large perforations separating radial rows of crystallites, and a concave distal top with a flange and a central distally pointed triangle.

**Holotype:** Negative 137410 (Plate 1, Figure 1), deposited at ICM (CSIC) Barcelona, Spain.

**Type locality:** Western Mediterranean Sea (40°40.3 N 2°52.0 E), depth 50m, 22 June 1995 (Cruise Fronts-95, Station 23D).

**Etymology:** "origami", suggested by Dr. Margalef, referring to the top body coccolith structures resembling origami paper boats.

**Number of specimens studied:** 6

**Description:** The coccosphere consists of 5 to 8 circum flagellar fragarioliths and 40 to 70 body calyptroliths (Pl.1 Figs. 1-4). The fragarioliths have an elliptical baseplate with a proximal rim one crystallite thick and two to three crystallites wide that supports the ornamented blade which appears to be sustained by buttress-like structures of rows of crystallites; the blade ends, distally, in a pointed triangle and six spine-like rows of crystallites, three on each side of the central triangle. The body coccoliths are calyptroliths with a flat, one crystallite thick, elliptical rim two to three crystallites wide connected to a narrower distal structure by up to 10 robust rows of ca. 3 crystallites separated by large spaces; these rows appear to act as columns supporting the paper boat like distal structure; this distal structure consists of a concave top with a distal flange and a sail-like, central pointed triangle-shaped protrusion running parallel to the long axis.

**Dimensions:** Coccosphere ca. 5 μm; body coccolith length 1.0-1.4 μm; body coccolith width ca. 0.8 μm; body coccolith height ca. 0.8 μm; circum-flagellar coccolith (long axis) ca. 1 μm; circum-flagellar coccolith height ca. 1-2 μm.
**Taxonomic notes:** *Anthosphaera origami* sp. nov. is included in *Anthosphaera* because it is a dimorphic holococcolithophore, with circum-flagellar fragarioliths and cap-shaped, calyptrolith-like, body holococcoliths.

The new species differs from the other *Anthosphaera* species mainly in possessing a concave instead of a rounded dome-shaped distal top. Moreover it presents an unusual profusion of adornments and column-like supports built from crystallite rows, which are otherwise only present, in a very restrictive way, in *Anthosphaera periperforata* Kleijne 1991.