

65. *Phosterolithus Aguado in Aguado et al. (2014)*

**Type species:** *Phosterolithus prossii* (Herrle and Mutterlose, 2003) Aguado comb. nov.

**Derivation of name:** From the Greek '*phoster*' meaning 'bright star' or 'brightness', referring to the high birefringence of these forms in light microscopy, and '*lithos*' meaning 'rock'.

**Diagnosis:** Rosette-shaped, very small to small and highly birefringent nannoliths formed by radially organized alternating oval and club-like elements. The club-like radially organized elements have their crystallographic c-axis tangentially oriented whereas that the oval elements have their crystallographic c-axis oriented radially.

**Remarks:** These forms were originally tentatively assigned to the genus *Polycostella* Thierstein, 1971 by Herrle and Mutterlose (2003). In *Polycostella*, as in other Polycyclolithaceae, all the radially organized elements have a tangential crystallographic orientation. However, our investigation revealed a more complex structure for '*Polycostella? prossii*', in which the tangential and radially oriented crystallographic elements coexist (see Fig. 14). In agreement with its complex crystallographic pattern, we propose that this species is clearly not related to *Polycostella*. Other Mesozoic genera consisting of radially organized elements such as *Kokia* Perch-Nielsen, 1988 or *Rucinolithus* Stover, 1966, also lack the complex crystallographic structure of *Phosterolithus*.

Aguado, R., Ginés, A. de G. & O'Dogherty, L., 2014. Integrated biostratigraphy (calcareous nannofossils, planktonic foraminifera, and radiolarians) of an uppermost Barremian-lower Aptian pelagic succession in the Subbetic Basin (southern Spain). *Cretaceous Research*, **51**, 153-173.