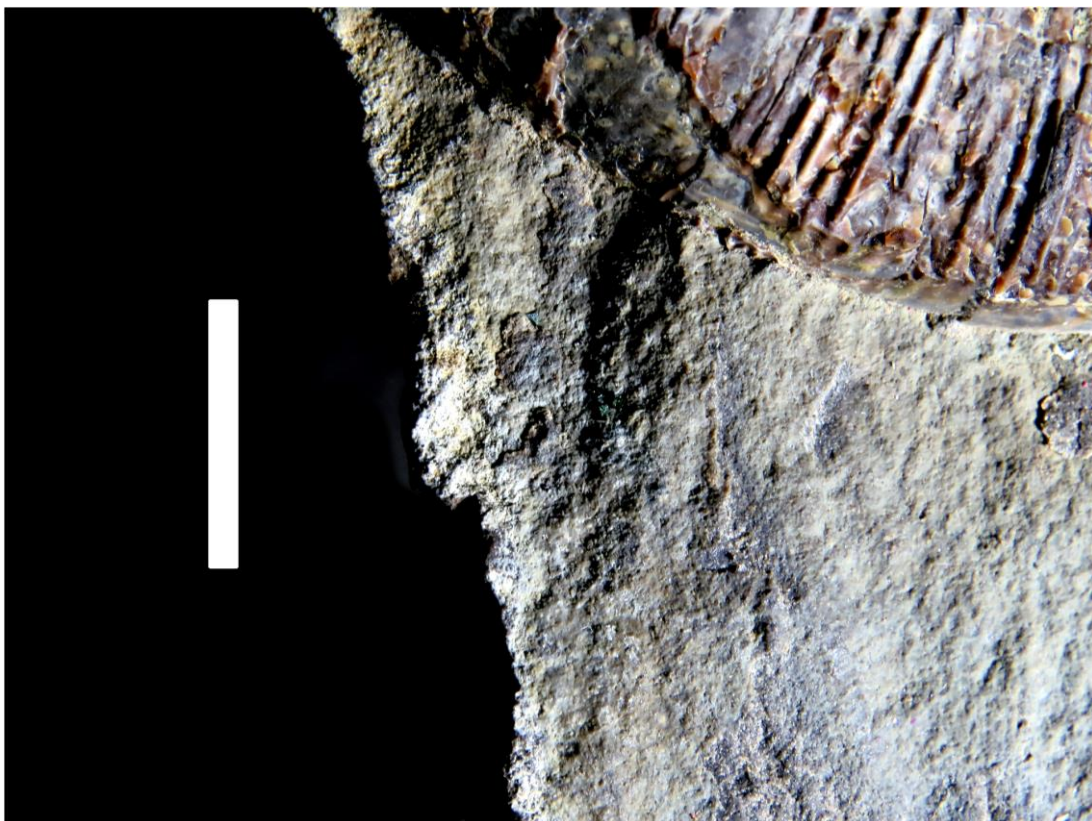
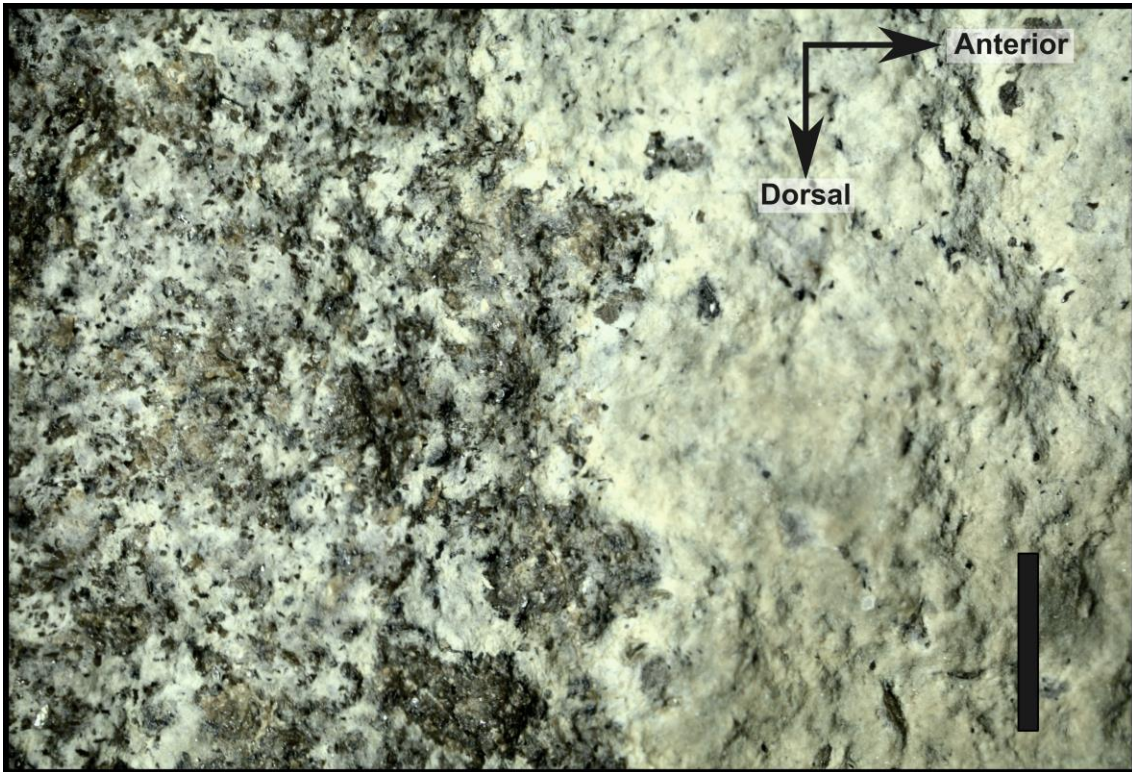
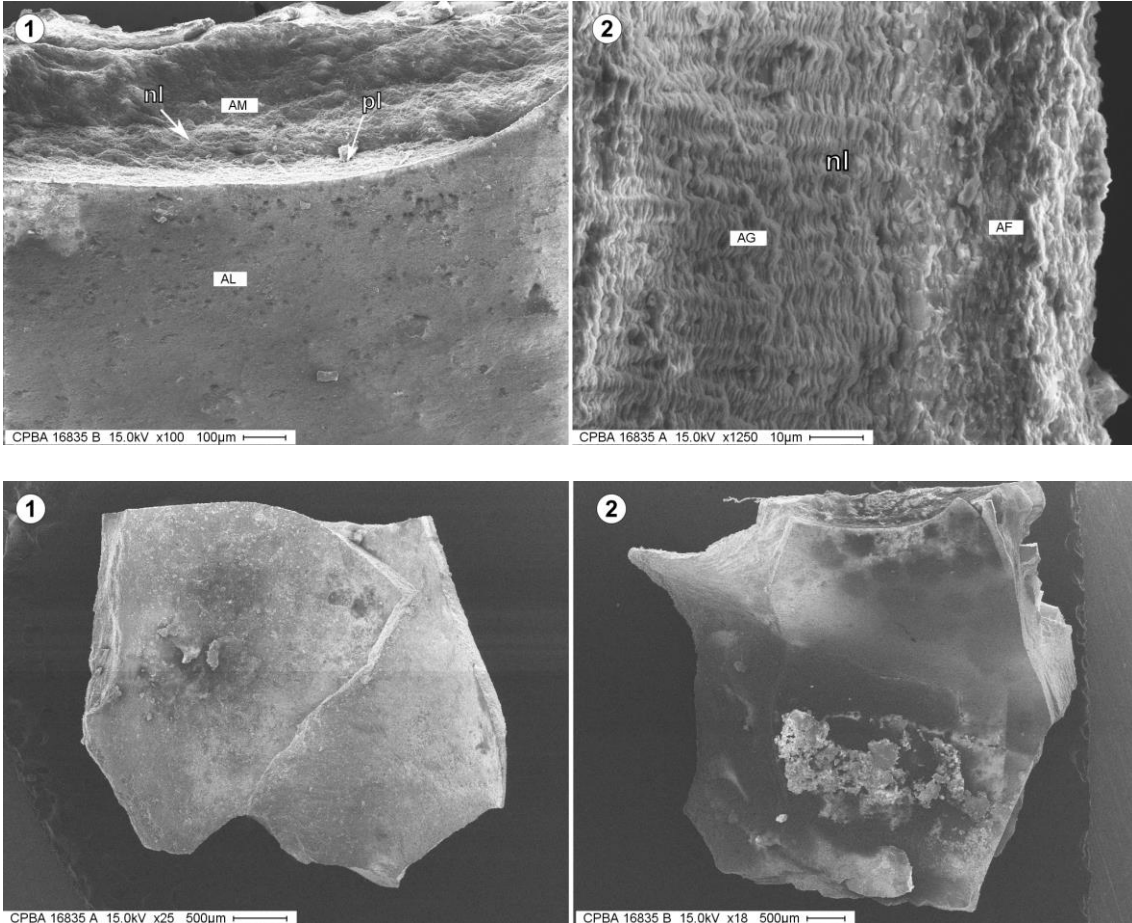


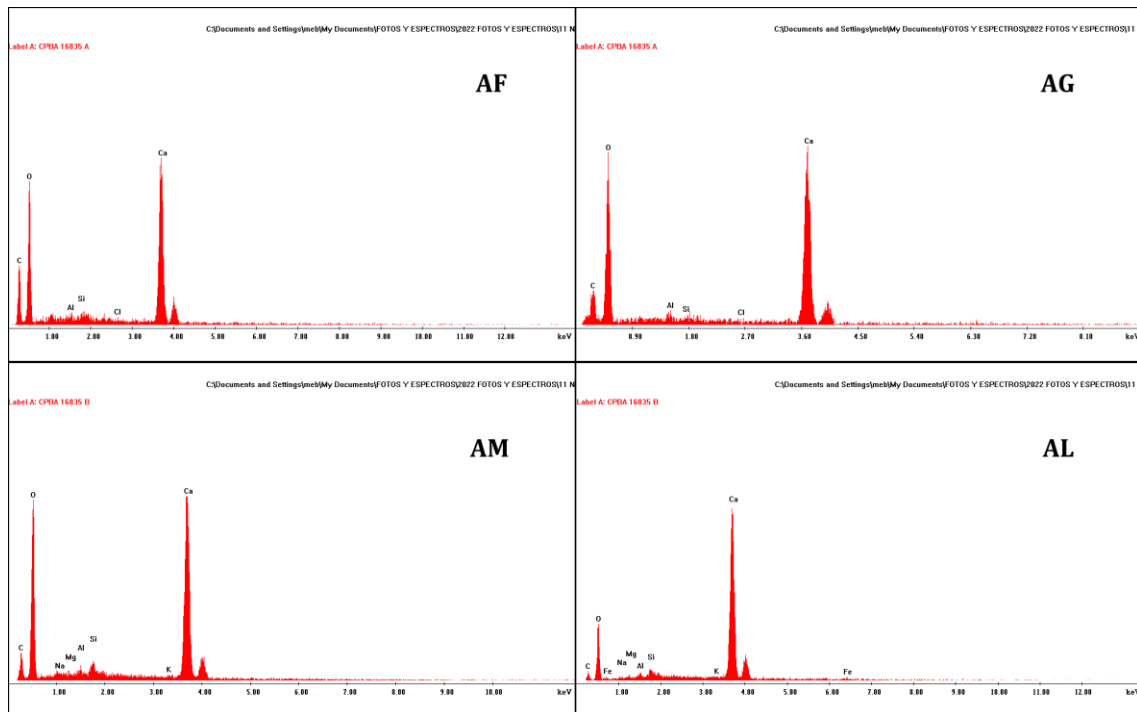
Supplementary Material 2



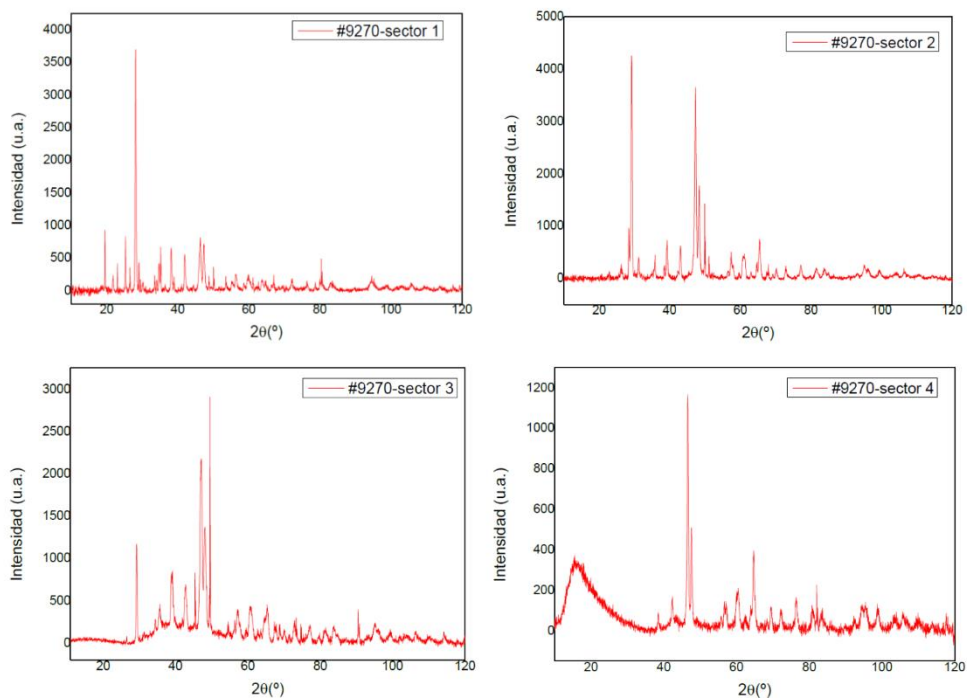


**Figure S1.** Complementary figures of the structures found in this work. Figure 1. Detail of the carbonatic surface at the posterior region. Note the differences in texture between the matrix to the left and the surface to the right. Figure 2. Detail of the outer lamella of the upper jaw and the rostrum in life position, with a lesser close up than Figure 4 in the text. Figure 3. Detail of the lanceolate cast.





**Figure S2.** Complementary SEM images of the shell fragments sampled from the studied specimen including the results of Energy dispersive x-ray (EDX) spectroscopy showing the composition of the studied areas. Figure 1. Two shell fragments of the studied specimen showing the external surface with several carbonatic layers. Figure 2. Close ups of the margin of the two fragments showing the prismatic (pl) and nacreous (nl) layers. AM, AL, AG, and AF are the areas analyzed using EDX. Figure 3. Results of the EDX analyses showing the carbonatic composition showed in Fig. 2 of this Supplementary Material.



**Figure S3.** Results of the x-ray diffraction (XRD) analysis including the diffractograms as spreadsheets (in comma separated values), and the compositional results obtained for each studied area using the software HighScorePlus V5.1.