

Expanded View Figures

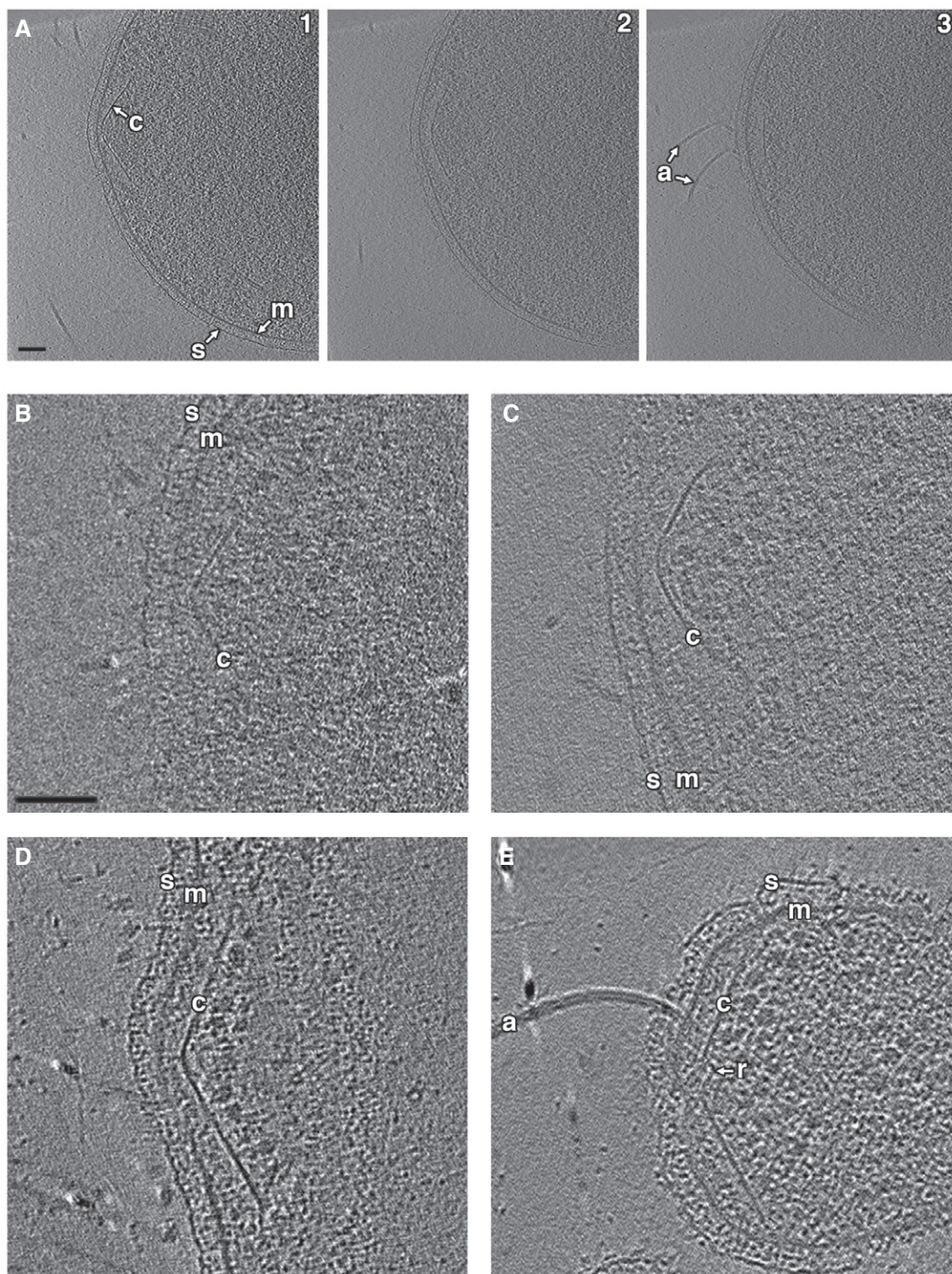


Figure EV1. Additional examples of conical structures in *Thermococcus kodakaraensis* cells.

A Sequential tomographic slices (1–3) at different heights through a side view of the cone.

B–E Additional examples of cones in intact (B and C) and lysed (D and E) cells are shown.

Data information: s, S-layer; m, membrane; c, conical structure; a, archaella; r, ring. Scale bars, 100 nm; scale bar in (A) applies to (1–3); scale bar in (B) applies to (B–E).

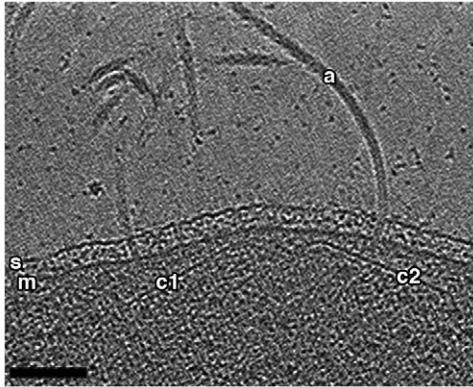


Figure EV2. Double-cone structure observed in *Thermococcus kodakaraensis*.

A tomographic slice through a side view shows two associated conical structures (c1 and c2), both associated with archaella (a). s, S-layer; m, membrane. Scale bar, 100 nm.

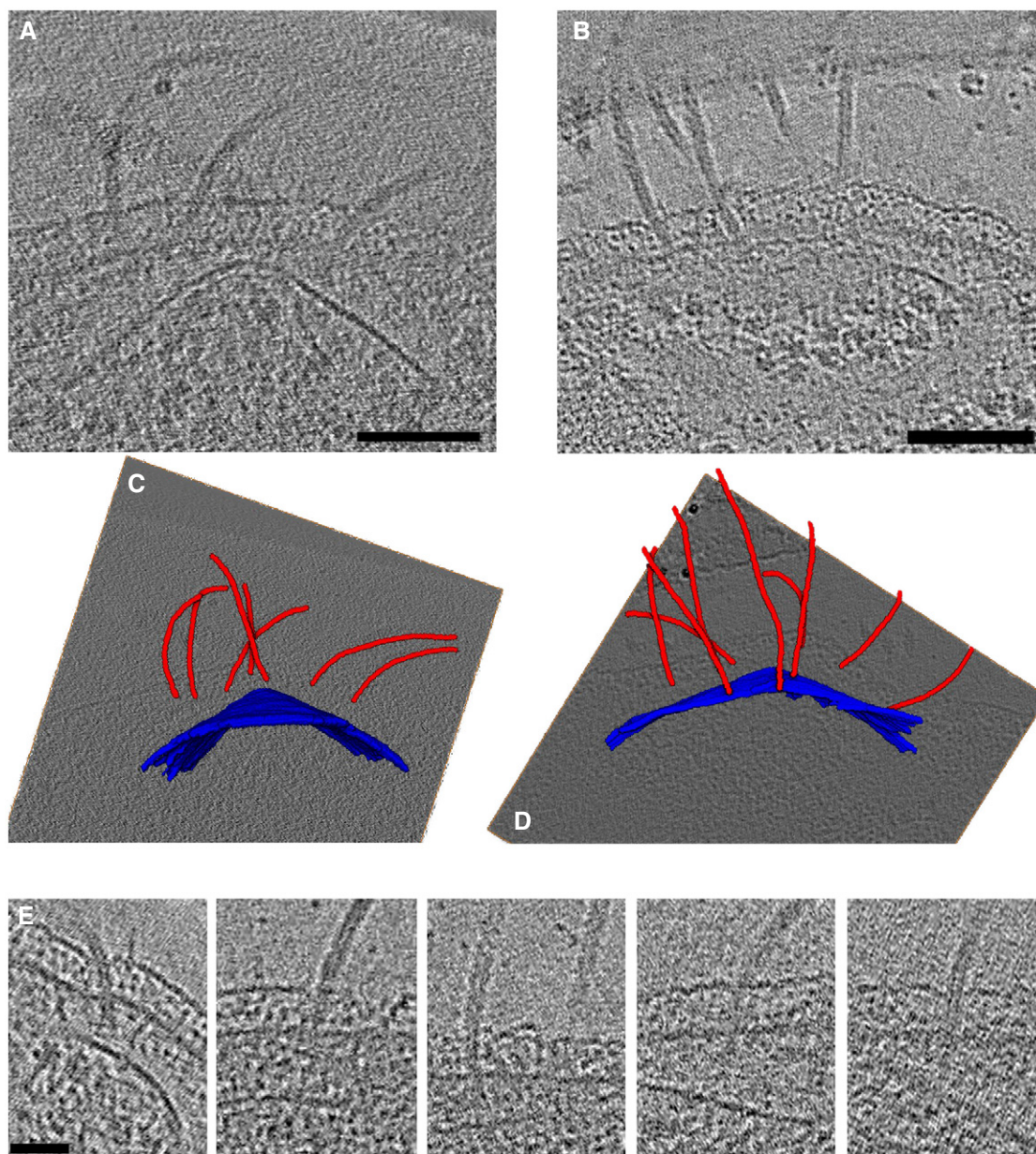


Figure EV3. Association of cones with the archaellar bundle.

A, B Tomographic slices through two cells, highlighting the association between the cone and the archaella.

C, D 3D segmentations of the cells in (A) and (B), respectively, with cones in blue and archaella in red, embedded in tomographic slices.

E Tomographic slices of individual archaella show the varying orientations of archaella with respect to the cell envelope, as well as apparent connections to the cone.

Data information: Scale bars, 100 nm in (A) and (B), 50 nm in (E) (applies to all panels in E); segmentations not to scale.

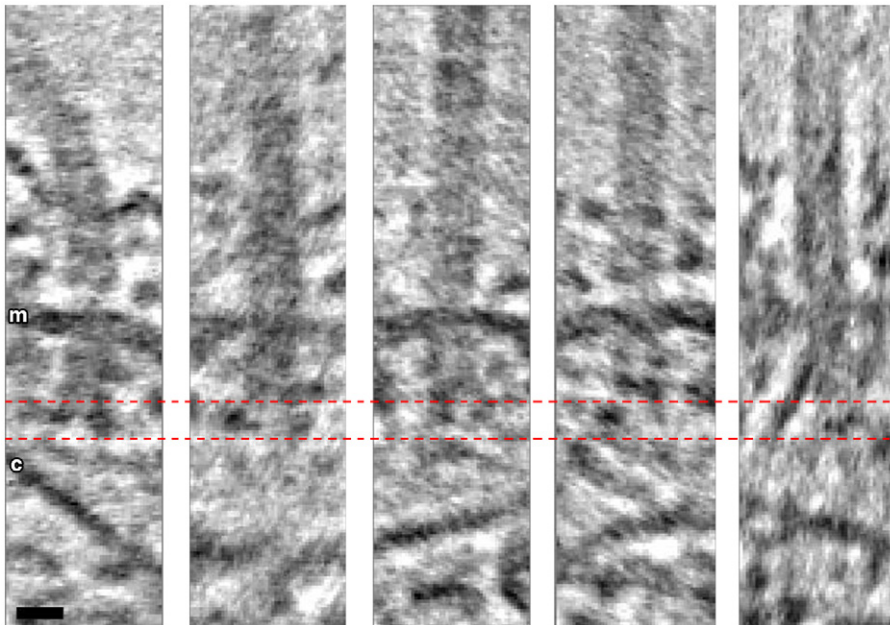


Figure EV4. Individual particles from the subtomogram average show heterogeneity in the L3 density and angle of cone density.

The L3 density appears as either two dots of similar (first two panels) or different intensity (third panel), a single dot (fourth panel), or a dot and an extended line (fifth panel). m, membrane; c, conical structure. Scale bar, 10 nm (applies to all panels).