

Les bactéries « anammox », quelques particularités



Figure 1 : Observation au MET d'une bactérie anammox.
Faites un schéma d'interprétation

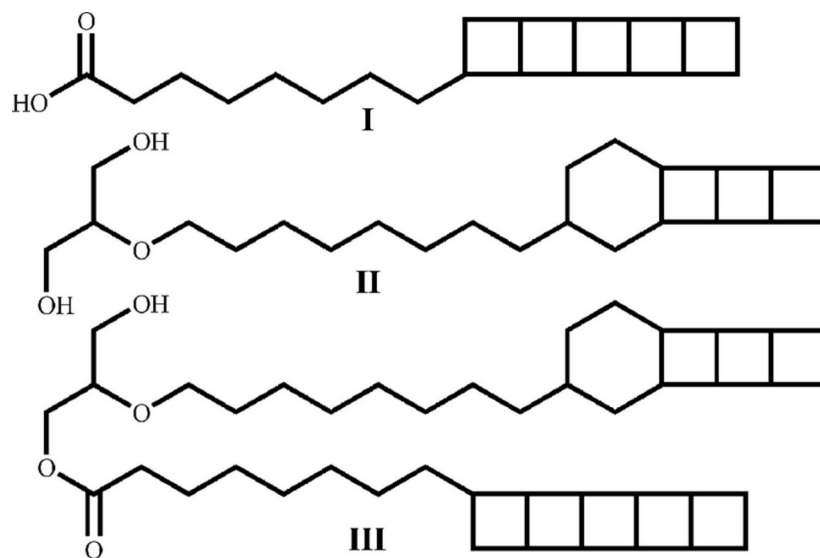


Figure 2 : Quelques phospholipides d'une membrane interne d'une bactérie anammox
Commentez

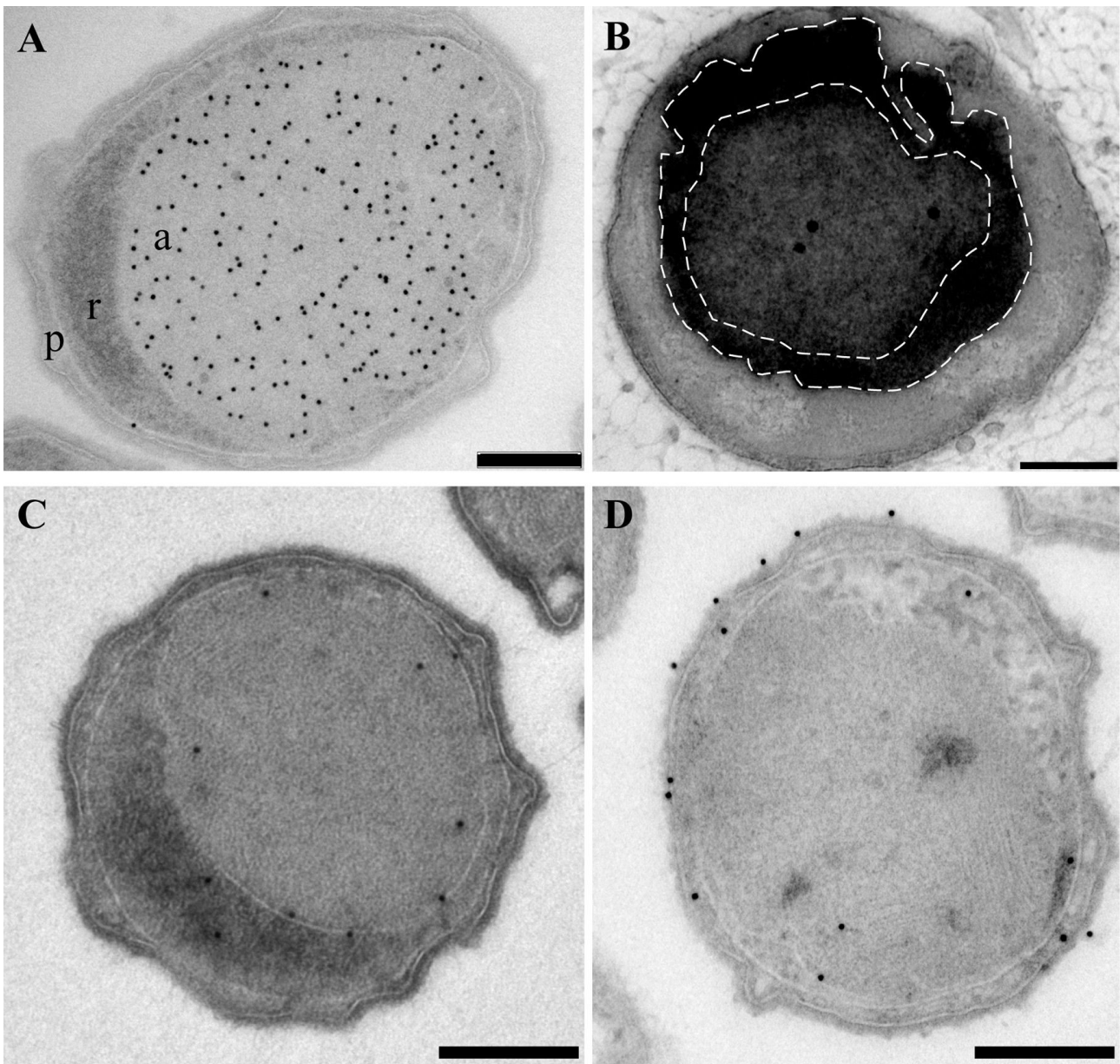


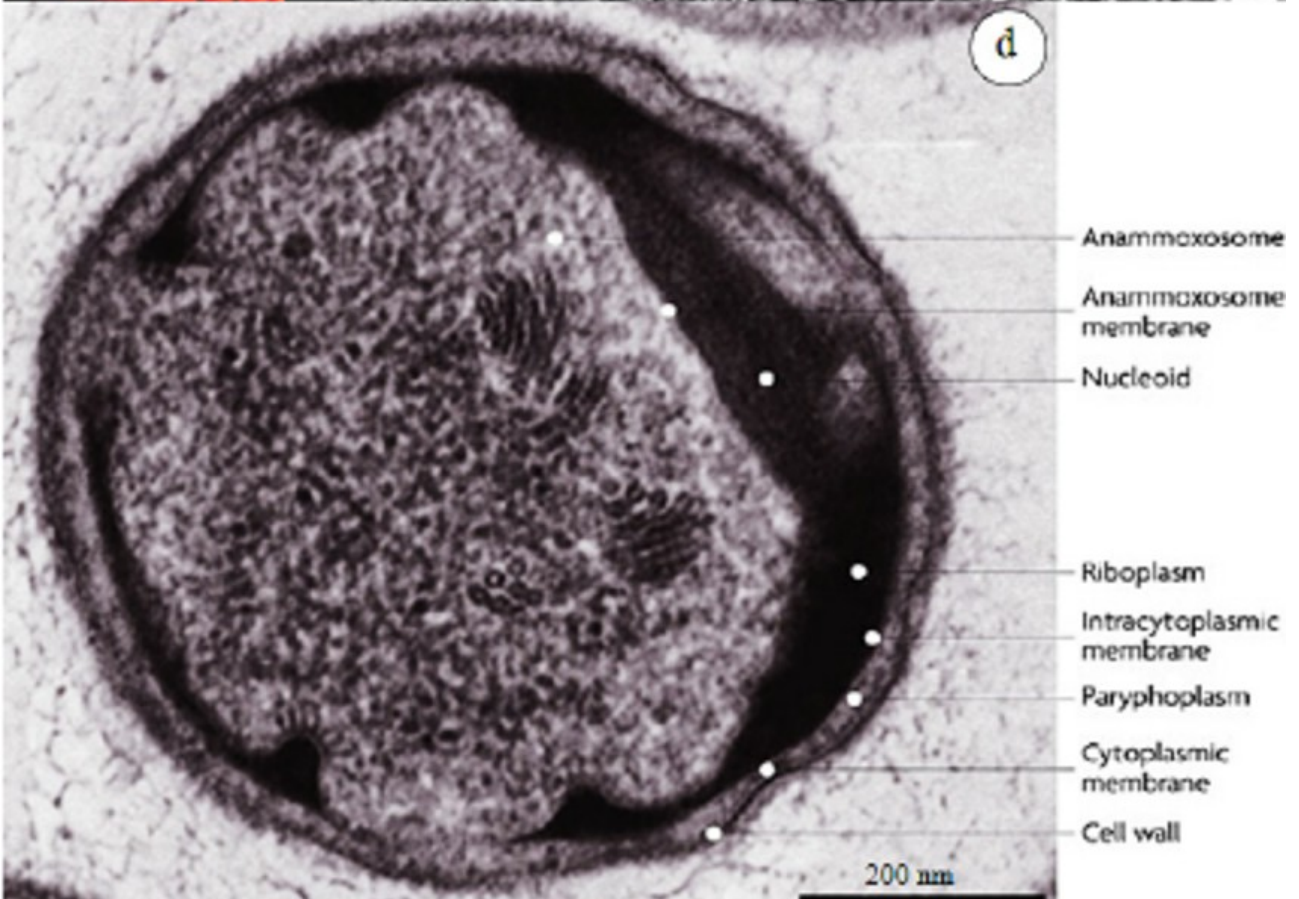
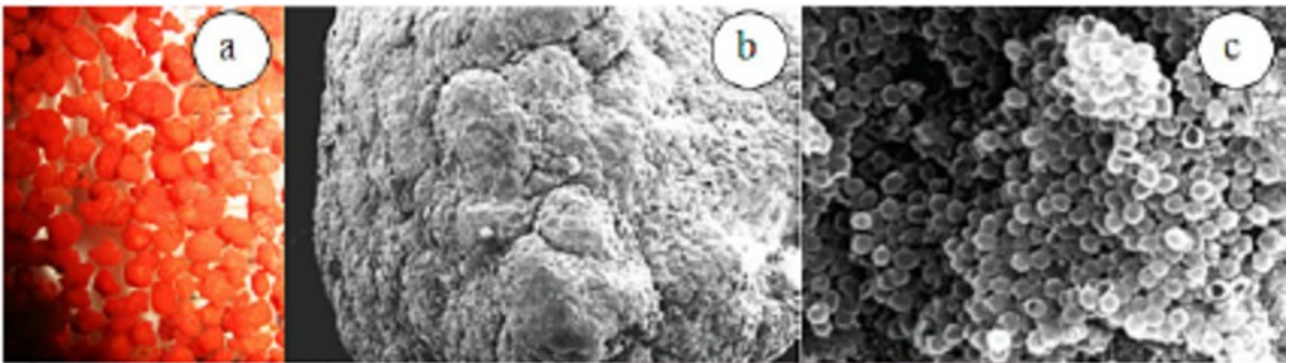
Figure 3 :

(A) Immunolocalisation (marqueur Au) des « anammox hydroxylamine oxidoreductase-like protein »

(B) Coloration des cytochrome C

(C et D) Immunolocalisation de la sous-unité catalytique beta de l'ATPase

Commentez : quel est l rôle du compartiment A



The cytoplasm in anammox bacteria is thus divided into three compartments separated by single bilayer membranes: (1) the outer region, i.e., the paryphoplasm, occurs as an outer rim defined on its outer side by the cytoplasmic membrane and cell wall and on the inner side by the intracytoplasmic membrane, (2) the riboplasm, containing the nucleoid and (3) the inner ribosome-free compartment, the anammoxosome, bounded by the anammoxosome membrane.

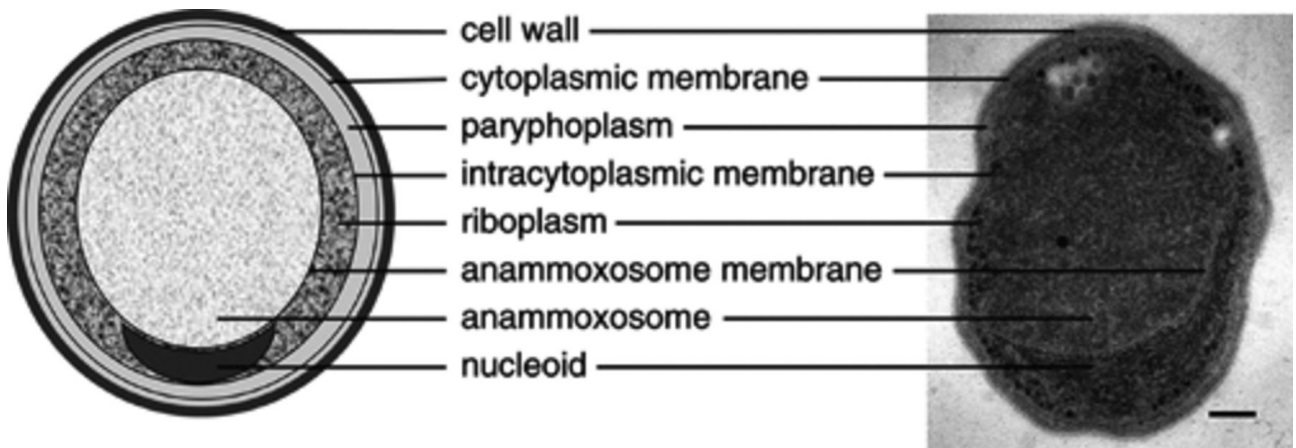


Figure 3 : Experimental evidence for the anammoxosome compartment of anammox bacteria being a dedicated energy generator. (A) Immunogold localization of an anammox hydroxylamine oxidoreductase-like protein shows its location in the anammoxosome compartment in rehydrated cryosections of “*Candidatus Kuenenia stuttgartiensis*.” a, anammoxosome; r, riboplasm; p, paryphoplasm. Scale bar, 200 nm. (B) Cytochrome peroxidase staining localizes cytochrome *c* proteins to the anammoxosome in chemically fixed and Epon-embedded thin sections of “*Candidatus Kuenenia stuttgartiensis*.” Intense staining occurs in close proximity to the anammoxosome membrane, as outlined by the dashed lines. Scale bar, 200 nm. (Adapted from reference [97](#).) (C and D) Immunogold localization of the catalytic beta subunit of the F-ATPase-1 gene cluster localizes this ATPase to the outermost membrane and the anammoxosome membrane in rehydrated cryosections of “*Candidatus Kuenenia stuttgartiensis*.” Scale bar, 250 nm. (Adapted from reference [100](#) with permission of the publisher. Copyright 2010 Blackwell Publishing Ltd.)