

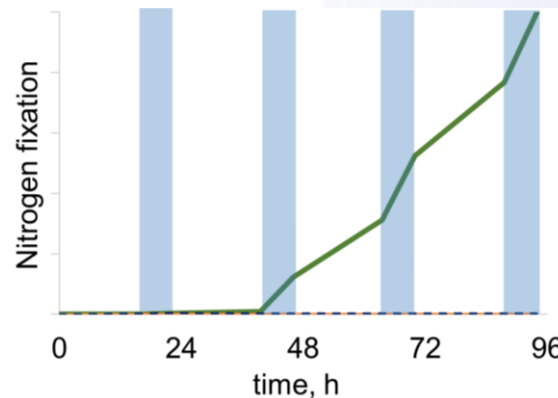
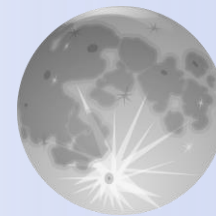
Soda lake:

stable pH above 9, high salinity and carbonate alkalinity, high sulfide content, constant nitrogen loss in volatile forms

Light oxic conditions



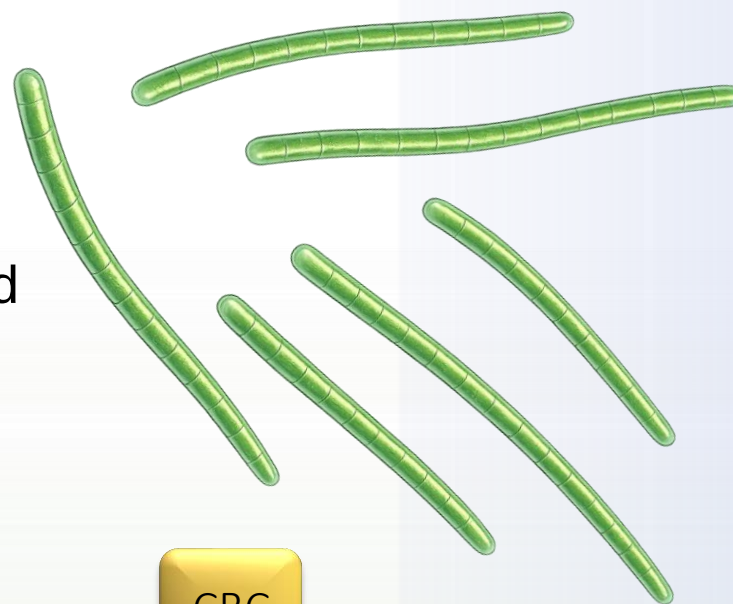
Dark oxic conditions



Oxygenic photosynthesis and low rate of nitrogen fixation

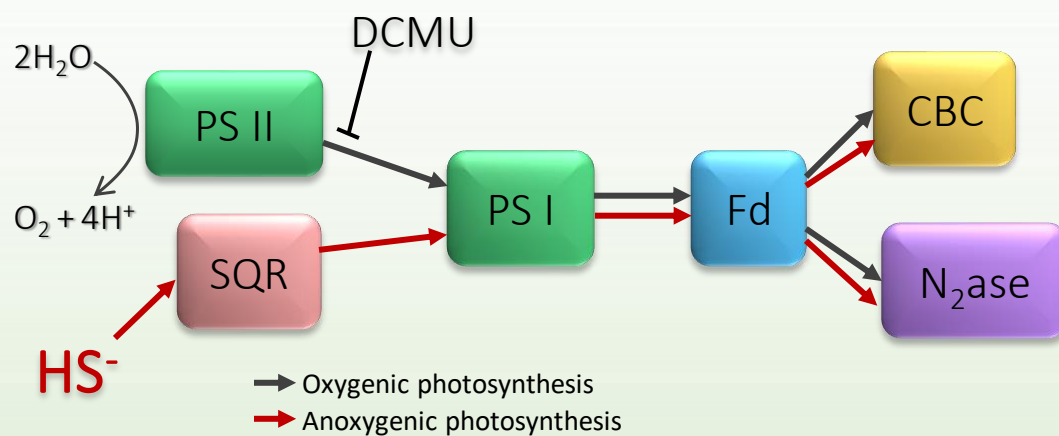
Active nitrogen fixation

Sodalinema sp. P-1104



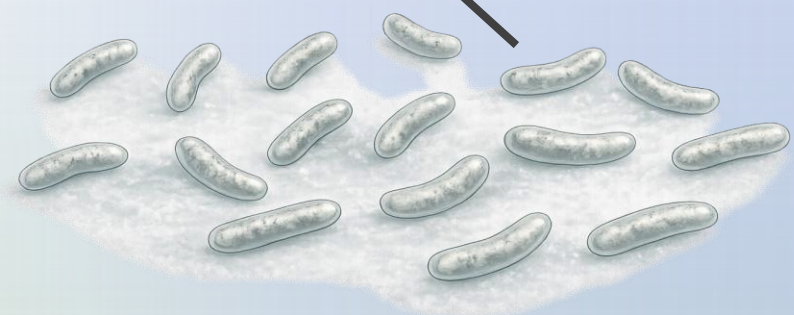
Light sulfidic conditions

Anoxygenic photosynthesis and sulfide-dependent nitrogen fixation



Dark sulfidic conditions

HGT of "anaerobic" nitrogenase



Desulfonatronovibrionaceae

