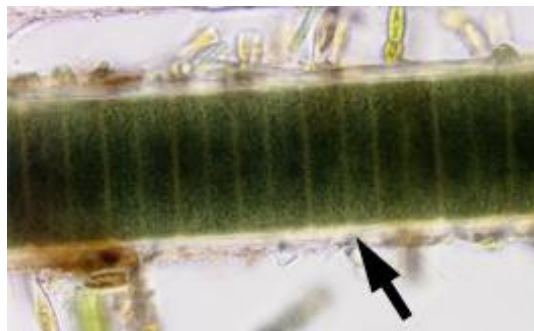
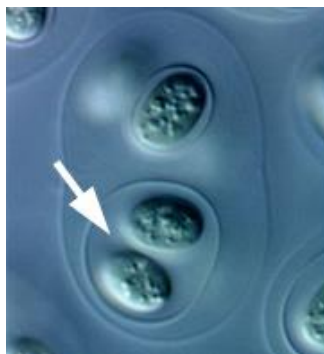


Cyanophyta (blue green algae)

General characters of Cyanophyta:

- 1- They are prokaryotic.
- 2- They found in fresh water habitats & marine.
- 3- The pigments are found in peripheral portion of the protoplast & include:
 - a- Chlorophyll a
 - b- Carotenes & xanthophylls.
 - c- Phycocyanin (blue pigment).
 - d- Phycoerythrin (red pigment).
- 4- Food reserve consists of cyanophycean starch or cyanophycin granules.
- 5- Cell wall composed of peptidoglycan, many sp. also posses polysaccharide matrix that envelope cell (*Gloeocapsa sp.*) or sheath that cover cells such as in *Lyngbya sp.*



- 6- They are reproduced only asexually.
- 7- They have about 150 genera and 2000 species.

Classification of Cyanophyta:

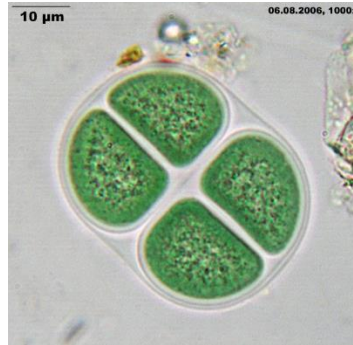
All **Cyanophyta** are placed in a single class called **cyanophyceae** and this class is divided into three orders differing from each other in vegetative organization and in methods of reproduction.

1- Order: **Chroococcales:-**

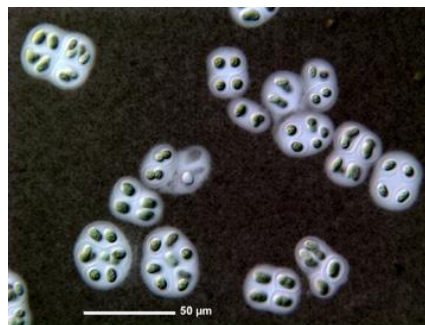
In which the cells are solitary or united in non-filamentous colony, reproduction is by **vegetative cell division** and **fragmentation** of colonies.

Chroococcus sp :

The organism is **unicellular** or **aggregated** together (two or four cells), the **sheath** are relatively thin & colorless. Cells are **spherical** or **hemi-spherical** occur **epipelic** (growing on mud or sand) & in plankton (suspended organisms).

*Gloeocapsa* sp.:

The cells are **ovoid** or **ellipsoidal** & surrounded by or **thick sheath** in which several generations of cells may be included. *Gloeocapsa* are **aquatic** and some of them may be found on **moist rock**.

*Microcystis* sp.:

The colonies of *Microcystis* are **spherical** or irregular; the cells are evenly distributed through out the **colonial matrix**. They often have a blackish or reddish appearance because of the **numerous gas vesicles** which they contain.

