

## **CHAPTER 9. EUKARYOTIC CELL MEMBRANES-II**

Plant cells have several structures not found in other eukaryotes. In particular, organelles called chloroplasts allow plants to capture the energy of the Sun in energy-rich molecules

In addition to the inner and outer membranes of the envelope, chloroplasts have a third internal membrane system, called the thylakoid membrane. The thylakoid membrane forms a network of flattened discs called thylakoids, which are frequently arranged in stacks called grana. Because of this three-membrane structure, the internal organization of chloroplasts is more complex than that of mitochondria.

The major difference between chloroplasts and mitochondria, in terms of both structure and function, is the thylakoid membrane. This membrane is of central importance in chloroplasts, where it fills the role of the inner mitochondrial membrane in electron transport and the chemiosmotic generation of ATP.