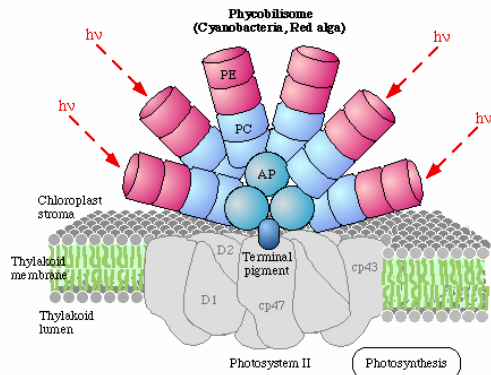




Native mass spectrometry can determine the subunit structure and cofactor composition of large protein complexes.



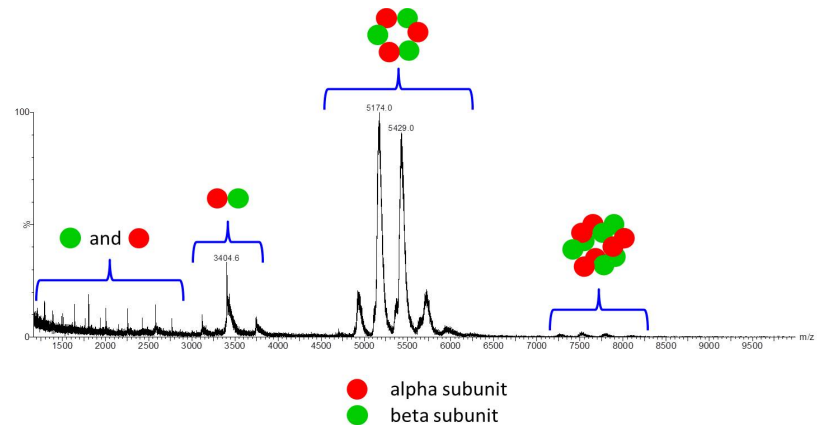
Phycobilisome antenna complex

Phycobilisomes are large (~5 MDa) antenna complexes with bilin chromophores. They act as light pipes for energy transfer to PSII in cyanobacteria.

Theme 1: Native Antenna

Theme 2: Biohybrid Antenna

Theme 3: Bioinspired Antenna



Native Electrospray Ionization (ESI) mass spectrum of allophycocyanin from *Thermosynechococcus vulcanus*.

Native mass spectrometry preserves the noncovalent interactions present in large multisubunit protein complexes by using aqueous solvents with volatile buffers (NH₄Ac) and collision-induced dissociation.

Robert Blankenship (Washington Univ.)

Hao Zhang, Lucas Harrington, Michael Gross

Noam Adir (Technion)

Liron David (PARC Student Exchange)

