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

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

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 (NH$_4$Ac) and collision-induced dissociation.

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**Theme 1: Native Antenna**
**Theme 2: Biohybrid Antenna**
**Theme 3: Bioinspired Antenna**

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