

Chlorophyll (from the greek $\chi\lambda\omega\rho\acute{o}\varsigma$, chloros = green $\phi\acute{\upsilon}\lambda\lambda\omicron\nu$, phyllon = leaf) is a green pigment found in organisms that perform photosynthesis (micro and macro algae, some bacteria and higher plants), a process of primary importance for living matter on earth. Through this process, the carbon in its oxidized form, carbon dioxide CO_2 present in the atmosphere, is converted in its reduced form (carbohydrates), found in the plant tissues, which constitute more than 99 weight percent of living matter on Earth.

Photosynthetic organisms are defined as primary producers of organic matter, and occupy the basic trophic level. The total amount of organic matter (or organic carbon) produced by photosynthesis, measured per unit of area - or volume - and per unit of time is called *primary productivity*.