

Monitoring And Testing Samples Of Chlorophyll / Pheophytin In Waccamaw River

I would like to acknowledge Dr. Gray for helping me learning more materials needed to enhance in my future.

Abstract

Chlorophyll/pheophytin could be really good and overall provides for the environment. Waccamaw river is one of the places that was tested and monitored for scientific purposes for researchers' studies. They are also essential molecules that are responsible for harvesting solar energy in photosynthetic antenna systems and for the charge separation and electron transport within reaction centers such as Chlorophyll/Phaeophytin which is a good material for main plants that is a green substance that appears in green plants and good for absorption of light for providing energy for photosynthesis.

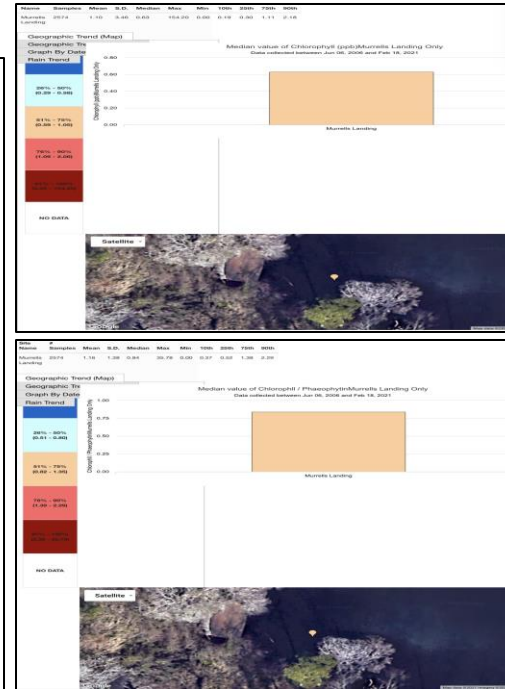
Results and discussion

Date Range :

Start Date: June 02, 2006

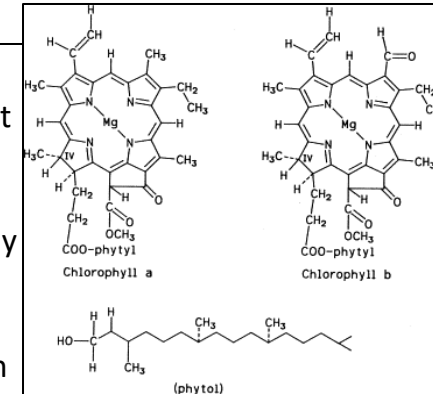
End Date: June 24, 2021

In the graph below demonstrate how researchers are testing monitoring different samples that they have taken from Waccamaw River in Murrells Landing, South Carolina. In the first graph only showing Chlorophyll in Murrells landing you can see that only 61% to 76% that's (0.69nm-1.06nm). I can infer that there was a lot of the materials found in the samples over the years that were tested. In the second graph, where Chlorophyll/Phaeophytin were both sampled in Murrells landing a lot more in the area that was between 61% to 76% that's (0.82nm - 1.36nm). From the second with both materials there was more producing than just chlorophyll in the first graph.



Methods and Materials

Chlorophyll A and Chlorophyll B maintain the coloration that is commonly the green pigmentation in the plant's tissue which is Approximately 3:1 in ratio. This structure Makes up the heme of Tetrapyrrole. The central atom that metal is the iron in the heme and magnesium in the chlorophyll and also the pyrrole unit IV that's in the chlorophyll is hydrogenated. The chlorophylls contain 20 carbon hydrophobic which is the phytol group.



Introduction

Chlorophyll is a green substance that appears in green plants and cyanobacteria. It absorbs mostly in the blue and to a lesser extent red portions of the electromagnetic spectrum, hence its intense green color. The green substance in Chlorophyll that traps light energy from the sun is then used to combine carbon dioxide and water into sugars in the process of the photosynthesis, helps the plants produce and also get energy from light. The two different structures to it which is Chlorophyll A and B; Chlorophyll A is the most commonly used photosynthetic pigment and absorbs blue, red and violet wavelengths in the visible spectrum. It participates mainly in oxygenic photosynthesis in which oxygen is the main by-product of the process. All oxygenic photosynthetic organisms contain this type of chlorophyll and include almost all plants and most bacteria. Chlorophyll B primarily absorbs blue light and is used to complement the absorption spectrum of chlorophyll A by extending the range of light wavelengths a photosynthetic organism is able to absorb.. Phaeophytin is a chemical compound that is the first electron that carries the electron then transfers the pathway of Photosystem II in plants, and the photosynthetic reaction center also found purple bacteria within the process. Chlorophylls are essential molecules that are responsible for harvesting the solar energy in photosynthetic systems, and for the charges of separation and electrons that transport. Chlorophyll/pheophytin was determined for the extraction within ethanol, total reactive phosphorus, total phosphorus, nitrite, ammonium nitrogen after EN-ISO methods. The EN-ISO method is mainly to produce a product, managing and delivering by a variety of different supplying materials.

Conclusion

In Conclusion, there are many benefits with the usage of chlorophyll/phaeophytin that is found in water. In small bodies of water such as ponds, rivers and lakes have significant influences with nature and help plants produce better. Both of these elements found in water can help the environment in different ways and produce on its own using photosynthesis and the combination of different atoms and molecules to recycle and reuse different energy resources to provide on their own. The element of Chlorophyll/ Phaeophytin has its own benefits as well as just giving nature "a hand".

References

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