

## FLOW OF ELECTRONS IN TREES AND GROWTH OF TREES AND PRODUCTION OF ELECTRICITY

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**Abstract**— in trees solar energy is used in the process of photosynthesis .In photosynthesis Green leaves of trees convert this solar energy into different forms of energies for the growth of tree. As the law states that energy can neither be created nor destroyed. Same thing is happen in trees. Solar energy is in the form of light rays which consists electrons .These electrons are used by the tree and provides them sufficient nutrients for the growth of tree. These electrons are cyclic electrons and provide energy to trees. These electrons are flow in trees and produced very small amount of electricity which lies in the range micro voltage. The amount of flow of electrons is different in different types of trees and environmental conditions. Flow of electrons at the night time slow as compare to day. In trees we are using only one electrode to generate electricity which also reduces the production cost of electricity, but in lemon and potatoes we are using two electrodes to generate electricity. We can also generated sufficient amount of electricity from trees by using custom made voltage booster by using nanotechnology.

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### I. INTRODUCTION

As we know that trees makes their food in the presence of light by using the process of photosynthesis .In this process light energy of Sun is converted into glucose and proteins . In this one question is arises here that how the process of photosynthesis is helps us to convert the Sun energy into proteins and glucose .Its answer is that during photosynthesis light energy is converted into another form energy as the law of thermodynamics is stated. This law states that energy can neither be created nor destroyed but it can be converted from one form of energy into another form of energy. Therefore in the process of photosynthesis light energy is used for conversion. The light energy actually the flow of electrons. Therefore light energy radiated by Sun is transferred towards the earth is in the form of Bunches or Bundles. These electrons are cyclic electrons. These electrons are very important in the growth of any tree. If we can measure the voltage level of one tree and second tree these are totally different to each other .The voltage level is depends on various factors like

1. Type of tree
2. Flow of wind
3. Size of the tree
4. Health of tree
5. Weather conditions

1. Type of trees: We have different type of trees. In different type of trees has different amount of energy. There are some

of fruits trees, some are large in size and some are small in size but hare size dose not play any role, does not mean hare if size of tree is large than energy's amount also in large scale. Some time quantity of energy in large scale in small in size trees.

2. Flow of wind: Flow of wind is also affects the flow of electrons. More the wind is blowing more the electrons will flow from one side to another side. These electrons also effects growth of the tree. Excess of wind is also discontinues the flow of electrons .It may stop the growth of tree.

3. Size of tree:-The size of tree does not affect the flow of electrons .But it affects the quantity of the electrons .Large size tree contains large amount of electrons in the stem. Therefore it does not affect the production of electricity generated by the tree.

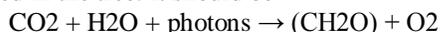
4. Health of tree: - Health of the tree affects the flow of electrons. A healthy tree can transferred more electrons from one side to another side. Hence more the flow of electrons in the tree more the electricity should be produced.

5. Weather Conditions: - Weather conditions play an important role in the flow of electrons in trees. Because trees uses Sun energy for the photosynthesis process .Therefore when the sky is clear then flow of electrons is more as compared to cloudy day. Therefore in cloudy day the lesser

amount of electrons is flow through the tree and the growth of the tree is less as compared by the sunny day. Hence for photosynthesis process sufficient amount of electrons are required.

## II. EQUATIONS

During the photosynthesis process the following type process is occurred in the tree. It should be



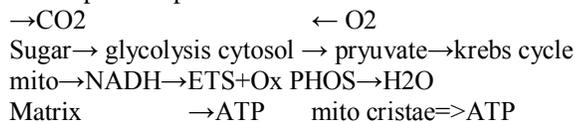
This is a simple equation used in photosynthesis process but if we find out where is light energy then see the following equation

$\text{CO}_2 + \text{H}_2\text{O} + \text{photons} \rightarrow (\text{CH}_2\text{O}) + \text{O}_2 + \text{Free electrons flowing in the tree}$

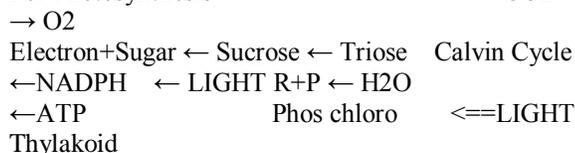
Actually these free electrons are the electrons which are converted in the form of food energy which is used by the tree. These electrons are in the form of cyclic electrons.

In trees following equation is must

For respiration process



For Photosynthesis



The Krebs and Calvin cycles are a cyclic set of enzymatic reactions occurring in the cytoplasm of an endosymbiont (organelle internal liquid matrix or stroma) and process carbon as carbon dioxide.

The light reactions and electron transport chain are electronic in function, using a set of membrane bound carriers. These carriers are heme-iron and electron/proton handlers. They pump protons across the inner membrane to conserve the energy. That energy is trapped in chemiosmotic ATP synthesis as the protons are leaked back into the cytosol of the endosymbiont.

The two reaction systems are basically the reverse of each other. One undoes the other in plants. Since plants do not eat to supply their energy needs, the plant must do enough photosynthesis to meet its needs for maintenance, growth and reproduction while compensating for losses due to respiration both night and day.

## III. THE LIGHT REACTIONS

We already studied the light reactions quite extensively. The light has property of wave; the length of the wave determines the energy and color of the light. Human vision and photosynthesis cover the range of wavelengths from 400 to 700 nm. The high energy end of this spectrum is the shorter wavelength purple light at 400 nm. The rest of the rainbow and decreasing energy follows as wavelengths increase to the lowest energy red light at 700 nm. Light also has the photon, particle properties. Light energy is measured as photon flux density. Plants tap small amount of energy in some very interesting biochemistry, releasing in each step some energy in the form of heat and other remaining energy is converted in flow of electrons. These flow of electrons play very interesting process and helpful to produce electricity in Plants. Most of Solar energy is lost during the photosynthesis process and only small amount of solar energy is being used by the plants. If the plants use the whole amount of solar energy then plants lost the photosynthesis process and plants would be dying. So it turns out that the reaction center pigments P680 and P700 are chlorophyll absorbing light maximally at 680nm and 700 nm. Notice that light excites P680 and shoots electrons up to Pheophytin. The small amount of energy is generated by these electrons and large amount of energy is wasted in the form of heat. The loss of electrons allows P680 to split a water molecule and replace its electrons. This action releases protons and oxygen gas. The protons participate in the electron transport chain and the coupled photophosphorylation steps. Thus water is the source of the electrons used in photosynthesis. These electrons are very helpful to produce the plants tissues and these tissues are used by the plants for their growth. Therefore if excess amount of electrons flow through the trees the plants should be die because due the flow of electrons excess amount of heat is produced and due this heat plants do not survive and result is the death of that plant.

## IV. CONCLUSION

The overall conclusion is that with the help of flow of electrons in the plants or trees we can generate very small amount of electricity and by using nanotechnology we can boost up this electricity and used for our daily needs. This will also help to save our natural resources and we can make our environment pollution free and provide healthy environment to our coming generations. For large amount of power generation we can interconnect many trees to each other. The second effect is that this flow of electrons is also affects the growth of trees. More the flow of electrons and more is the growth of the trees.

## V. REFERENCES

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