Quest Journals
Journal of Research in Environmental and Earth Sciences
Volume 7 ~ Issue 3 (2021) pp: 09-12
ISSN(Online) :2348-2532
www.questjournals.org

Research Paper

Endless Use of Ionospheric Energy

Abasianie Samuels
Undergrad Scientific Researcher.

ABSTRACT
Ionospheric electricity are demanding exciting endeavours, but be of great importance to the world in a global scale, it must be harnessed from the atmosphere or let say being specific the Ionosphere for consumption. Ionospheric energy an energy located at the Ionosphere made of charged subatomic particle, the electron, due to Ionization. It has been of great importance in the telecommunication and navigation field because it modified radiowaves. The study of these ionospheric energy was to investigate how electricity can be harnessed, from its harvestation to his distribution clearly and concisely for human and industrial consumption. This study would provide a proper guideline for the increase in the use of another form of Renewable or free energy.
KEYWORDS: *Atmospheric electricity, Ionospheric energy, subatomic particles, ultraviolet rays.*

Received 01 Mar, 2021; Revised: 12 Mar, 2021; Accepted 14 Mar, 2021 © The author(s) 2021.
Published with open access at www.questjournals.org

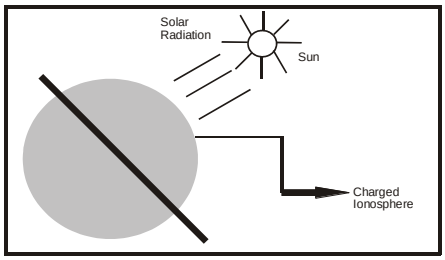
ACKNOWLEDGEMENT
I have to use this medium to express my heartfelt appreciation to my tutor Sir U. D. Afangideh who taught me ordinary level physics and nurtured me to my present academic maturity.
May I also use this opportunity to express gratitude to myself for taking pains, time, devoting and numerous suggestions for improving the organization of these scientific article.
I am happy to acknowledge the relentless effort the grand designer of the universe (God) for the strength he bestowed on me, during the writing of these scientific paper.

I. INTRODUCTION

The Ionosphere would be an intriguing way for the future of atmospheric electricity, studying the behaviour of particles in the Ionosphere through digital computed simulation. The Ionosphere being made of Ionized particles its uniquely reactive to the changing magnetic and electric field of the earth. In the tatter years, and even Till Today, the Ionosphere acted as of great importance because it reflects Radiowaves used for communication and Information, and also influencing the Radio Communication to distant places on the earth. Nevertheless, Ionosphere, didn't really play a vital role, for the extraction of energy for electrical and mechanical consumption due to his great strength, which seems uncontrollable, due to high voltage of about 400,000v. The scientific paper would be of great importance to issue a solved problem for the extraction of Ionospheric energy at every cost.

II. METHODOLOGY

The methodology used would be based on Franklin experiment. In present day practice a lightening conductor takes the form of a thick copper strip fixed to an outside wall, reaching above the highest part of the building and ending in several sharp spikes. When a negatively charged cloud passes over head, it acts inductively as the conductor, charging the point positively and the earthed plate negatively. But we would be using the method of controlling atmospheric electricity from thunder clouds to extract energy from the Ionosphere through ultraviolet light, lightening/Geomagnetic storms.

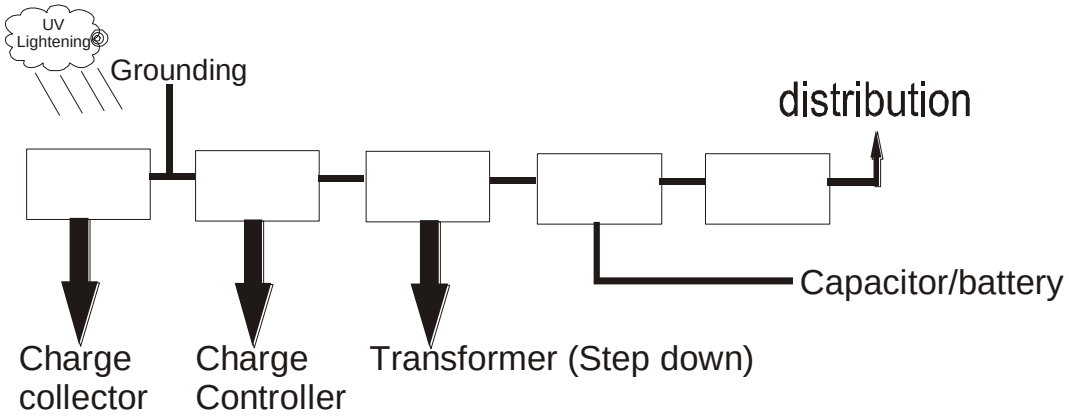


But there is another way this energy could be harnessed and it can be measured on the surface. If you lay out long cables on the ground state at the end of the cables, you will be able to measure a time varying voltage which is a result of Ionospheric disturbances. But there is one huge disadvantage, over a 200m cable you might only measure 4 to 6 millivolt, this doesn't represent much current and voltage. Perhaps the cooper rod could be the way of concentrating these intensity.

Samuels – Franklin Experiment

Franklin attempts was only to control lightening from building specifically tall buildings, but the Samuels-Franklin experiment is build base on Franklin idea, to use his method to harnessed electricity.

A metal copper rod about 500m of length (L), with a charged collector made of fibers of Graphene and silicene with grounding circuit connected to the earth which acts as the negative charge, it is connected to a charge controller and a step down transformer, to reduce the amount of volts passing through, of about 400,000volts and 200,000Ampere, that's a huge volt which can destroy. The electrons or charges are sent to the capacitor to store charges and then for distribution.



III. Result

From the experiment we can analyze that the energy extracted from the Ionosphere is always from a source, either from lightening strikes or ultraviolet radiation.

We could first deal with the result from the ultraviolet radiation. This UV control the rate of ion densities. The temperature of these region vary from

210 Kelvin to 500 Kelvin. Since the amount of charges extracted from the Ionosphere, is based on its temperature, the amount of charges would be high giving sufficient intensity. In the night time the charges extracted from the Ionosphere is reduced due to relaxation of Ionized particles which recombine back to neutral particles.

"The would be Rise and fall in quality of charges Q, since the amount of charges extracted in based on the Temperature of the UV light in a particular area of the world".

Therefore, increase in temperature leads to increase in charges, and decrease in temperature leads to decrease in charges. Increase in charges leads to increase in intensity and decrease in charges leads to decrease in intensity.

From this result I came up with a relation, after my observation, hypothesis and experiment from my conclusion.

Graphs/Calculations

The relation states that the intensity or power generated from the Ionosphere is directly proportional to the product of the quantity of charge and temperature and inversely proportional to the length of the conductor, covered between the earth surface and the atmosphere.

Mathematically

$I \propto \theta$

$I = k\theta$

$K = Q$

$I = Q\theta$

$I = \frac{Q\theta}{L}$

:. $Q \frac{I.L}{\theta}$

Or we can say $P \propto \frac{I}{L}$ I

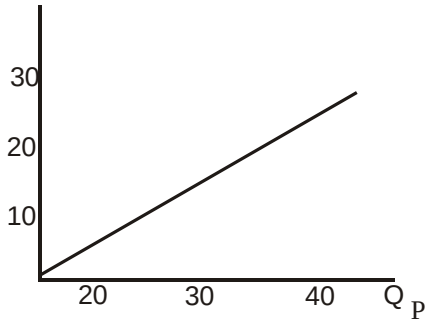
and $I = \frac{Q.\theta}{L}$

:. The intensity is measured in coulomb Kelvin per meter

From the equation we could plot a graph of I against Q and a graph of temperature against quantity of charge.

:. $\frac{dy}{dx} = \frac{di}{dQ}$

I – t axis and Q at the x-axis and I-y axis and Q-x axis

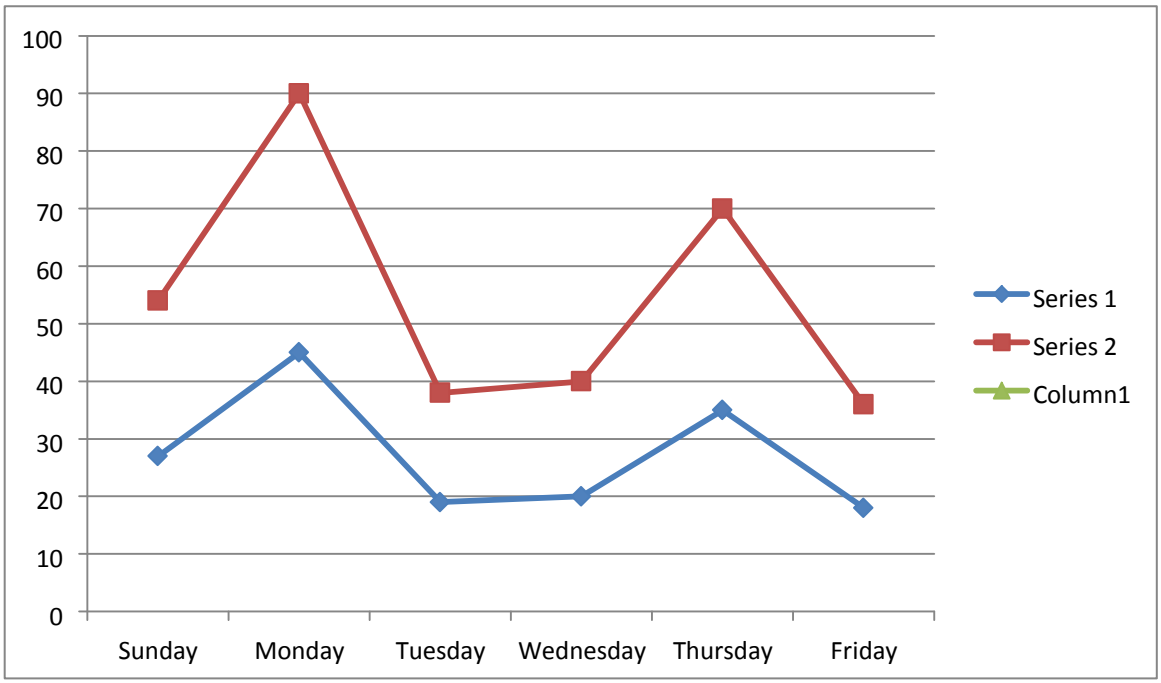


In contrast solar extraction also obeys Samuels Relation.

Why lightening was not really taken into consideration, was because of his danger, and may lead to lost of lives and many casualties, would be involved.

Graph of temp against day

Day	**Θ ^{0}C**	**Q(c)**
Sunday	27	54
Monday	45	90
Tuesday	19	38
Wednesday	20	40
Thursday	35	70
Friday	18	36
Saturday	24	48



IV. DISCUSSION

From the results and methodology through experiment a lot of explanation have been taken into consideration. How Energy is harnessed from the Ionosphere for consumption. It shows how ultraviolet radiation would play a good rule for the future of electricity. Some years ago, there was a controversial claim from a company that it can harvest useful amount of electricity directly from the atmosphere, however the technology can definitely help harvest some energy from the atmosphere, so there is always free in form of charged ions in the air, collected from Ion collectors made up of fibres of Graphene and silecene, collected energy stored in a capacitor, stored energy is used to produce hydrogen, which may be used to power hydrogen powered cars, Ion collectors are always suspended high through balloons or kites.

Moreover, the future of our habitat could make use of ionospheric electricity from the Martian atmosphere, as well they can harvest free energy in Martian atmosphere, they would produce power day and night and even during Martian dust storms; However the future would tell if there ion collection can be installed, on airplane, drones or even satellite, and also it could play a great role in microelectronic devices, autonomously and continuously free of cost. The future of ionospheric electricity would be monumental and endless.

V. CONCLUSION

Moreover, as time passes, the race of technological advancement have been a great race. Its time the world get to know more about Wireless electricity, and take on its free form.

The research adopts a serious need to push the technological race forward through the harvestation of electricity from the Ionosphere. The study was not only of vitale importance, not only to the researcher, but for the people of the world in the sense that it helps to identify a old-new form to harness electricity in a global scale.

REFERENCES

[1]. F Abbott (1984): Ordinary Level Physics.
[2]. Dr. Charles Checo, Chow Sien Fong; Gosti. Sae. Ee; Prof. F. C. Eze; (New system physics: 2011); O. A. Olarewajie.
[3]. Prof. M. W. Anyakoha: New school physics
[4]. Wikipedia: Atmospheric electricity, Atmospheric Ionospheric Energy, Ionosphere