

NATIONAL CHILDREN'S SCIENCE CONGRESS-2019 (FORM-A)
Registration Child Scientist : Submission - #8548

Select State & Districts / KVS,NVS & Regions
Category Kendriya Vidyalaya Sangathan
State/KVS-NVS (Regions) Ernakulam

Block/Tehsil : KALPETTA
Project Title : CARBON COMPOUNDS , THE NEW LIFE
SAVER

Area: Urban

Language Used : English

Sub-Theme : Waste to Wealth

Details of School / Institute / Organisation

Type of School : Govt./Aided School

Name : KENDRIYA VIDYALAYA KALPETTA

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JUNCTION, KALPETTA, KERALA, 673121 PINANGODE ROAD WAREHOUSE JUNCTION,
KALPETTA 673121 KALPETTA

Details of Group Leader

Name : SANAND G DEV

Gender : Male

DOB : 04/29/2003

Age : 16

Mobile No. : 9446367552

E-mail ID : sanandgdev@gmail.com

Whether Child with Disability (CWD) : No

If Yes then type :

Details of Co-worker

Name : SHIMRON ALAKKAL

Gender : Male

Date of Birth: 04/18/2003

Age: 16

Whether Child with Disability (CWD) : No

If Yes then type :

Details of Guide Teacher

Name : Mrs.SUSMITHA MARY ROBBINS

Designation : PGT PHYSICS

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Name of Institute : KENDRIYA VIDYALAYA KALPETTA

Address of Guide Teacher : XX/420 (1) K G NAGAR K G NAGAR, NEAR WARHOUSE
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21/2/2020

Seal and Sign of the Head of the School/Institute/Organisation / Principal

Seal and Sign of the District Coordinator

- Take 2 (two) Print-out of this form and get them signed by the Head of your School / Inst./ Org.

- Paste one copy of the form with your Project Report.

- Submit the second copy of the form to the District Coordinator. A mail of acceptance or rejection will be sent to your e-mail ID.



**27 NATIONAL CHILDREN'S SCIENCE
CONGRESS 2019-20**

STATE : KVS **CATEGORY : UPPER**
LANGUAGE : ENGLISH **AREA : URBAN**
STATE CODE :
TITLE : CARBON COMPOUNDS : A NEW LIFE
SAVER

GROUP LEADER : SANAND G DEV

GROUP MEMBER : SHIMRON ALAKKAL

SCHOOL : KENDRIYA VIDYALAYA , KALPETTA

ADDRESS : NEAR WAREHOUSE JUNCTION , PINANGODE ROAD
KALPETTA , WAYANAD

DISTRICT : WAYANAD **STATE :** KERALA **PINCODE :** 673121

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ABSTRACT

To convert a waste to wealth is considered as a highly relevant and applicable marvel in the human development and social domains across the world.

27 NATIONAL CHILDREN'S
SCIENCE CONGRESS 2019-20

FOCAL-THEME:

SCIENCE, TECHNOLOGY & INNOVATION
FOR A CLEAN, GREEN & HEALTHY NATION

SUB-THEME :

WASTE TO WEALTH

TOPIC :

CARBON COMPOUNDS : A NEW
LIFE SAVER

GROUP MEMBERS

SANAND G DEV

SHIMRON ALAKKAL

GUIDE TEACHER

Mrs. SUSMITHA MARY
ROBBINS

TALUK

K V KALPETTA

DISTRICT

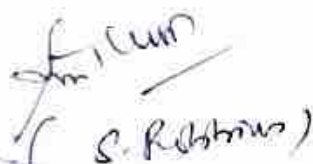
ERNAKULAM REGION

STATE

K V S


PRINCIPAL

G. SASIKUMAR


(S. Robbins)

SIGNATURE OF GUIDE TEACHER

The world today is undergoing great challenges as a result of our activities, mainly pollution. And carbon compounds turn out to be a deadly pollutant which is being emitted at a tremendous rate and can cause great destruction in the near future.

An attempt has been made in this project to reduce the emission of CO_2 - CO - HC with the help of an ioniser [Exhaust Bond Breaker] using electricity. We concentrated on studying situations, problems and their consequences persisting in Wayanad. Hence, the main aim of our study is :

Conversion of carbon-oxygen compounds into carbon and oxygen using an electric ioniser or else called EBB and using the separated carbon to generate wealth.

The methodology used was survey and experimentation. Survey, discussions and interviews were done with eminent personalities like Environmental engineers, mechanics etc.

A comparative study was done with respect to urban and rural areas of the district. An attempt was also made to prepare and design EBB.

The obtained carbon could then be put to use for generating wealth and the main applications among them are: graphite, lead, ink content, glass component and even diamond under special circumstances. Thus, the economic benefits of this project would definitely contribute to the welfare of society and beyond.

This novel idea can be used to beat pollution, reduce stress on life, meet the economies of the producers and more.

HYPOTHESIS

Today, many initiatives are being taken by the government and non-government organisations to reduce the emission of greenhouse gases to the environment and atmosphere. Yet much of a positive result is not achieved so, we are planning to conduct a detailed analysis of the benefits of carbon ioniser mainly in automobiles and industries. This would result in the separation carbon and oxygen, and hydrogen at a very low rate from the exhaust.

This carbon, obtained, could then be converted to graphite and carbon used in ink out of which graphite could then be converted to lead. Thus, we intent to generate a deadly waste into a valuable wealth and ultimately control and reduce pollution.

OBJECTIVES

To reduce the amount of carbon in the atmosphere hence reducing the emission of green house gases, increasing the amount of ozone protecting the earth, increasing the rate of production of breathable oxygen and many more.

To convert the carbon into a valuable wealth: graphite, lead, soldering lead, welding fuel's component, ink content, glass and tumbler content, rubber component etc.

To ultimately beat pollution and ozone layer depletion and hence making the world a better place to live in.

METHODOLOGY

Our project deals with conversion of a waste to wealth i.e carbon compounds into valuable products after their ionisation with the aim to beat pollution.

The main methodology used in our project is survey and experimentation. First and foremost, we met Assistant Engineer (Environmental engineer) of the Kerala state Pollution control Board (KSPCB) and asked them about the variation in weather and climatic conditions due to pollution. They provided us with information on the amount of breathable gases i.e dust along with the composition of SO_2 and NO_2 in the kalpetta and Bathery region. Many people are unaware of the impact of CO and CO_2 emission to the atmosphere.

Next stage in our project was visit to different pollution testing centres and gather

information about the present rate of CO emission and standard values.

We prepared questionnaire and payed (visit) to the Meenangadi Panchayat for having earned a rare distinction of being the first carbon neutral city in the country. This visit and interview with the President of the Panchayat, Mrs. Beena Vayalar gave us additional facts about the ways to treat greenhouse gases. All these informations were totally different from our ideas with respect to automobiles and industries.

In addition to this, there was an interview with mechanics working in automobile service centres. The main intention of this interview was to design EBB (Exhaust Band Breaker) in the most apt, possible and convenient manner.

Experimentation was carried out on a small-scale by the group member Shimon Alakhal for confirmation.

RESULT

From the detailed analysis of data obtained, we found that the level of green house gas can be reduced to a large extent.

Fossil fuels could be used without emitting any green house gases, from both vehicles and industries. The ozone layer could start retaining its lost parts and people, including other living beings could breathe fresh and pure air. The by-product of even fossil fuel engine's exhaust would just be breathable oxygen and water vapour.

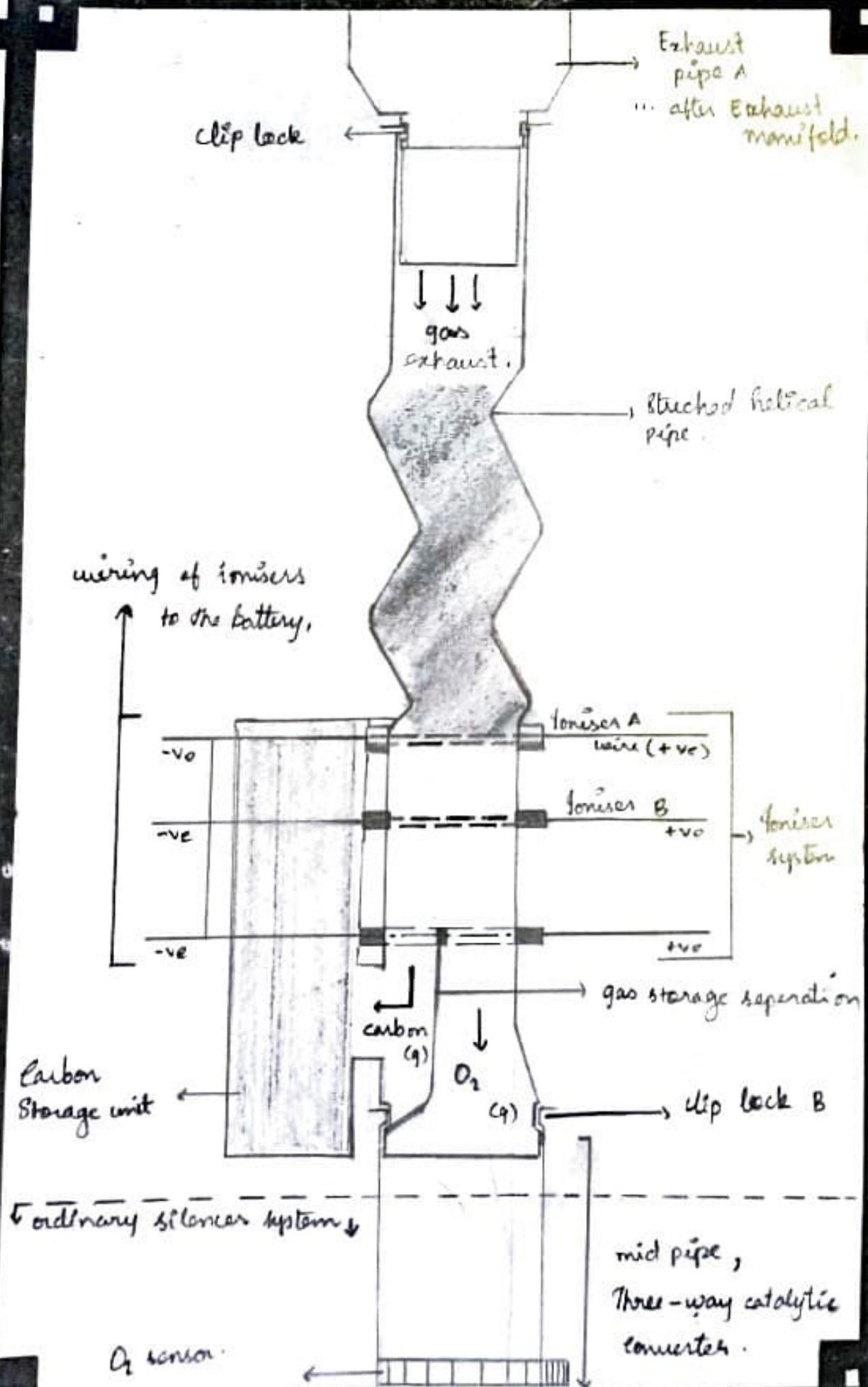
This level of pollutionlessness could be accomplished using, what we call, the EBB or the **EXHAUST BOND BREAKER**.

This is our step forward to change the world as a whole for a pollution-free environment.

CONCLUSION

From the detailed analysis of data and results, we conclude that:

- Conversion of carbon-oxygen-hydrogen compounds is one of the best alternatives, till date, to beat pollution.
- Carbon compounds, which is considered as a waste-and dangerous among wastes - could be used to build wealth as well as reduce pollution.
- Application of EBB and like machines could reduce ozone layer depletion, heat in or temperature rise in environment, increase breathable oxygen content in air and many more.



SOLUTION

Pollution is nothing but the resources we are not harvesting. We allow them to disperse because we've been ignorant of their value.

Conversion of carbon-oxygen pollutant, using machines like EBB, we become part of solution and not a part of pollution.

ENVIRONMENTAL POLLUTION IS AN
INCURABLE DISEASE. IT CAN ONLY
BE PREVENTED