

# MSANSAMPEKE BARKS' AS THE ALTERNATIVE RAW MATERIAL

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## Introduction

In our Tanzanian community, most people suffer from tonsillitis. This disease is caused by virus but commonly bacteria known as streptococcus pyogenes. The bacteria is violent as it attacks the immune system and may sometimes cause death. It mostly affects many people during cold condition as many cases are reported during this season. In concern the government of Tanzania is responsible to buy medicines for the treatment of people. Thus we have come up with a project titled "MSANSAMPEKE BARKS AS AN ALTERNATIVE RAW MATERIAL FOR THE MANUFACTURING OF AMOXICILLIN" to help in solving this problem in our country and continent at large. The Msansampeke barks, are the barks of the Msansampeke tree which is a name from the Nyiramba tribe. The tree is mostly found in the savanna regions.

## Method

The msansampeke barks have been used locally as one of the traditional medicine for treating tonsillitis and its symptoms. Tonsilits have continued to hurt a lot of people especially children. The government also has been hustling to make sure that it helps in treating the disease by providing money for buying of medicine. From this suffering and disturbances we came will the idea of using the Msansampeke barks to be used as an alternative raw material for treatment of the disease, by transforming it from locally used to official used

In this project of msansampeke barks as an alternative raw material for manufacturing of amoxicillin the method used Laboratory Experiments which was in two stages, they were used to collect data about how msansampeke barks are related to amoxicillin in composition. These two methods are;

1. Extraction of suspected salts from msansampeke plant.
2. Qualitative analysis

The barks from the msansampeke tree were well obtained and well dried in the sun for a time

>The dried barks of msansampeke were burned to obtain ashes for the process.

>The ash solution was made using distilled water in order for the process of reducing impurities from the sample.

>Filtration of the ash solution was carried out using a clean piece of cloth and a filter paper was also used

>The sample was then evaporated using evaporating and almost three quarters of the solution were evaporated.

## Results

From the qualitative analysis performed, the cation obtained was sodium ion {Na<sup>+</sup>} and the anion investigated was sulphate ions {SO<sub>4</sub><sup>2-</sup>}. Therefore the salt from msansampeke barks extracted can be used as the alternative raw material for manufacturing of amoxicillin sodium salt which resembles the salt from msansampeke barks.

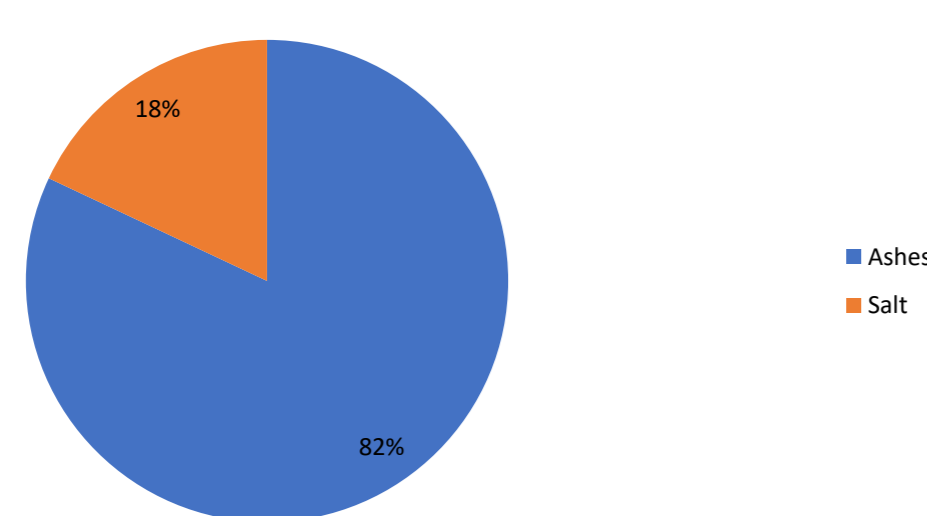
Composition of the burnt substance

>Salt extracted=18%

>Ashes =82%

Moreover presence of the salt from msansampeke barks in addition with some organic compound results to the formation of amoxicillin sodium.

COMPOSITION OF BURNT SUBSTANCE



## Conclusion

Msansampeke bark can be used as alternative raw materials in manufacturing of amoxicillin which is used to treat tonsillitis. Through this project it have helped to show how our herbals and traditional medicines can be used in manufacturing the medical medicines we use and hence reducing cost to the people and the government also but importantly pharmaceutical industries. Us as students through recognizing the efforts of our leaders in the country by supporting the industrial sector.

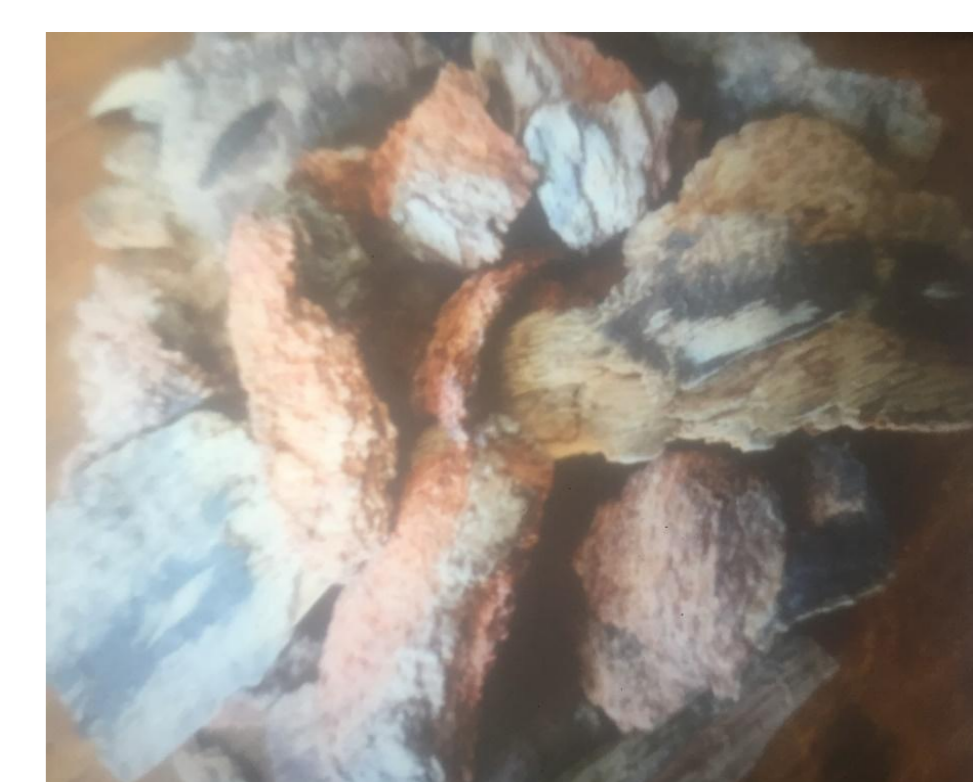
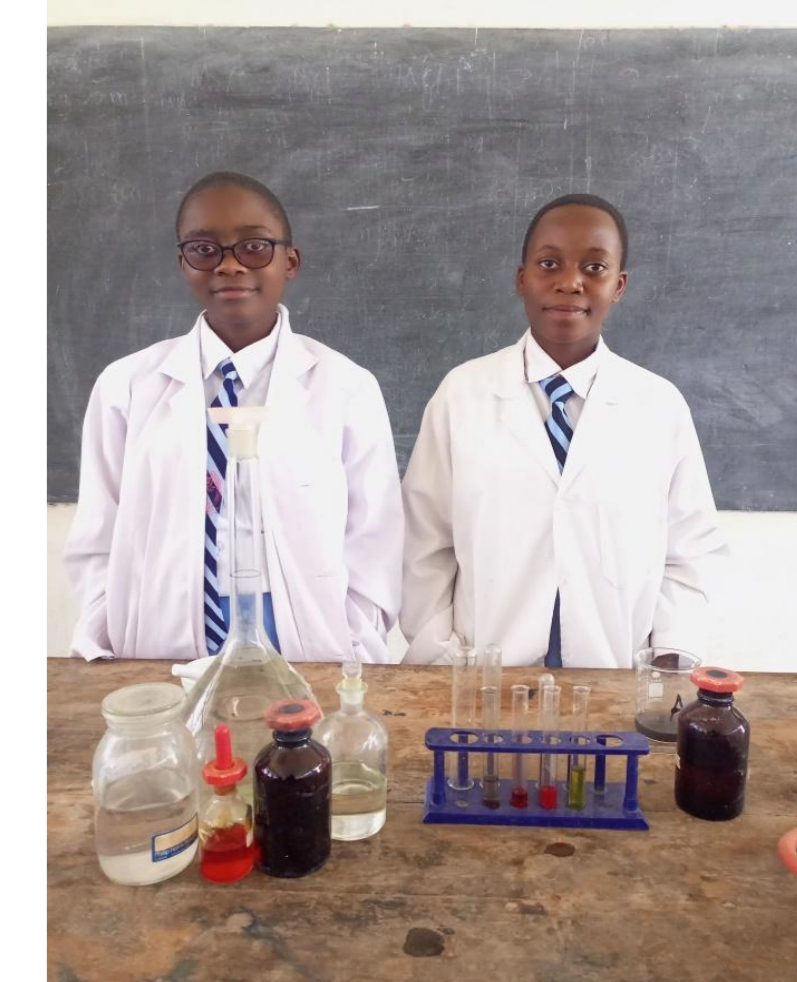
"The development of our country needs the healthier me and you, industrial sector to be expanded together we can."

## References

- Qualitative analysis guide sheet by NECTA council
- TIE Text Book General Chemistry For 5 & 6

## Acknowledgments

First of all, we would like to thank the almighty God for the great favor of giving us the chance to live and undertake such a study. Secondly, we would like to take this opportunity to express our gratitude to our beloved project supervisor Madam Upendo Kipuyo, headmistress of our school Madam Mwasiti Msokola our academic teacher Peter Mabamba our laboratory technicians, ICS lab teacher sir Salum Balila and coordinator of Dodoma region for the guidance, motivation, endurance and encouragement during the study of our project.



EXPERIMENTS	OBSERVATIONS	INFERENCE
01	Appearance of sample	
02	A clean glass rod was dipped in concentrated HCL (in a watch glass) then heated in a non-luminous flame.	Golden yellow flame Na <sup>+</sup> may be present
03	A small amount of solid sample was transferred into a dry clean test tube then the content was strongly heated.	Colorless gas with pungent smell evolves, which turns moist blue litmus paper red. SO <sub>4</sub> <sup>2-</sup> may be present.
04	A small amount of solid sample was transferred into a clean test tube followed by addition of small amount of dilute HCL	No gas evolves. SO <sub>4</sub> <sup>2-</sup> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> may be present.
05	A small amount of solid sample was transferred into a clean dry test tube followed by small amount of concentrated HCL	No gas evolves SO <sub>4</sub> <sup>2-</sup> may be present
06	Small amount of the solid sample was transferred into a clean dry test tube followed by addition of enough amount of distilled water.	Soluble in cold water. CO <sub>3</sub> <sup>2-</sup> of Na <sup>+</sup> may be present
07	Small volume about 1cm <sup>3</sup> was transferred into a dry clean test tube. Barium chloride solution was added followed by dilute HNO <sub>3</sub> .	White precipitate is formed insoluble in dilute HCL. SO <sub>4</sub> <sup>2-</sup> confirmed.
08	Small volume of the solution sample was transferred into a test tube followed by few drops of Mg SO <sub>4</sub> solution.	White precipitate is formed. CO <sub>3</sub> <sup>2-</sup> confirmed.
09	Small volume of the solution sample was transferred into a dry clean test tube then dilute H <sub>2</sub> SO <sub>4</sub> followed by FeSO <sub>4</sub> then concentrated H <sub>2</sub> SO <sub>4</sub> along the side along the test tube.	Brown ring is formed at the junction of the liquids. NO <sub>3</sub> <sup>-</sup> confirmed.
10	A clean glass rod was dipped in concentrated HCL (in a watch glass) then heated in non-luminous flame.	Golden - yellow flame. Na <sup>+</sup> confirmed.