



## **SYNTHESIS AND CHARACTERIZATION OF VANILINE USING COCONUT WATER**

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### **Abstract**

*The role of naturally available fruit juice in organic synthesis has attracted the interest of chemists. Particularly from the view of Green Chemistry. This review summarizes the versatile synthetic applications of fruits juice as a biocatalyst in different chemical transformation. Coconut water catalyzed reaction including Biginelli Pyramiding Sythesis respectively. Coconut water was used as a biocatalyst for reduction of carbonyl compounds and hydrolysis of ester, amides and anilines. Application of fruit juice as a natural and biocatalyst allows mild and highly selective transformation and synthesis in a facile and environmentally friendly manner. More over fruits are easily available in market and the juice can be easily extracted and can be used as a natural catalyst in organic transformation.*

**Keywords:** *Biocatalyst, Ecofriendly, Economic*



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### **INTRODUCTION:**

Now a day's organic research is mainly focused on the development of green and ecofriendly processes which involve in the use of alternative reaction media to replace toxic and expensive catalyst. Recently, many organic transformations have been carried out in expensive, non-toxic and environmentally being.

Fruit juice is also a naturally occurring which was used as a biocatalyst in organic synthesis. Fruit juice is now a day mostly used in organic synthesis as a homogeneous catalyst for various selective transformation of simple and complex molecule.

### **MATERIAL AND METHOD:**

#### **1.MATERIAL:**

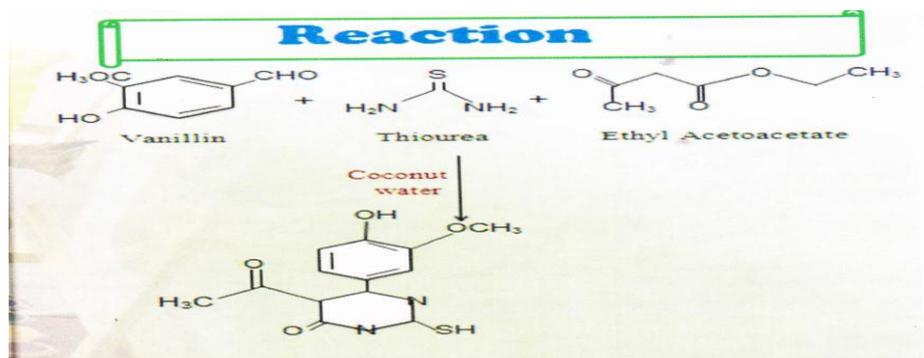
- Coconut water
- 0.01M vaniline

- 0.01M thiourea
- 0.011M of ethyl acetoacetate

## 2. METHOD:

Mix 0.01M of vaniline, 0.011M of ethyl acetoacetate and 0.011M thiourea with 6-7 drops of pine-apple juice each other in glass round bottom flask fitted with condenses and carry out the reaction in a microwave for about 120 second by using minimum power 180 watts. Cool the reaction mixture at room temperature and recrystallized by using proper solvent record the yield and melting point of the product.

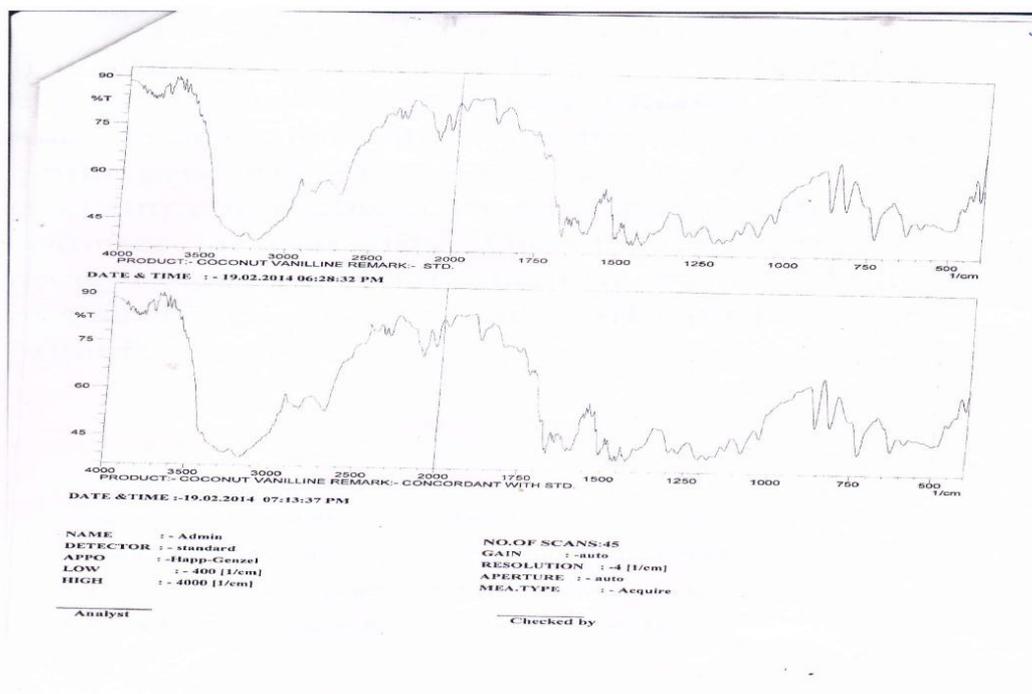
## REACTION:



## RESULT:

Practical yield of product : 1.42 gm.

## Spectra



## **CONCLUSION:**

This review focuses the importance of fruit juice as a natural and biocatalyst in organic transformation.

1. The growing interest of fruit juice in organic synthesis is mainly due to their acidic property, enzymatic activity and environmental character, in expensive and commercial availability.
2. It is easily affordable, harmless and ecofriendly

Therefore, the preset review would serve the real of organic chemists in searching new application of fruit juice for organic synthesis.

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