

Qualitative Analysis of Primary Metabolites of the Plant Clematis Gouriana

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ABSTRACT

The traditional medicine involves the use of different plant extracts or the bioactive constituents. This type of study provides the health application at affordable cost. Hence in the present study phytochemical screening of so. A primary metabolite is directly involved in normal growth, development, and reproduction. Qualitative phytochemical analysis of these plants confirm the presence of various phytochemicals like Carbohydrates, Fats, Vitamins, Minerals, Lipids, Water, Enzymes, saponins. The results suggest that the phytochemical properties for curing various ailments and possess potential antioxidant and leads to the isolation of new and novel compounds

Keywords: Phytochemical screening, primary metabolite, carbohydrates, protein.

I. INTRODUCTION

Metabolites are the intermediates and products of metabolism. The term *metabolite* is usually restricted to small molecules. Metabolites have various functions, including fuel, structure, and signaling, stimulatory and inhibitory effects on enzymes, catalytic activity of their own (usually as a cofactor to an enzyme), defense, and interactions with other organisms. A **primary metabolite** is directly involved in normal growth, development, and reproduction. Alcohol is an example of a primary metabolite produced in large-scale by industrial microbiology.

Plant produces various metabolic products for their growth and development. Phytochemists now have been able to isolate, identify and characterize about 70,000 chemical substances synthesized by plants. Those substances which are essential for growth and survival of the producer plant are called primary metabolites

II. PRIMARY METABOLITES⁽²⁾

- Carbohydrates
- Fats
- Vitamins
- Minerals
- Lipids
- Water
- Enzymes
- Amino acids
- Proteins

III. EXPERIMENTAL METHODS

Primary Metabolites

Test for Carbohydrate

Non-Reducing Sugar: It is tested by Molisch test. The extract is treated with alcoholic α - naphthol and drops con. H_2SO_4 . The Violet / purple coloration is observed.

Reducing Sugar: It is tested by Fehling's and Benedict's tests. Mix equal volume of Benedict's reagent and test solution in test tubes and heat in boiling water bath for 5min. The red coloration is observed.

Test for Proteins and amino acids

Million's test: Add Mercuric oxide and con. HCl (Million's reagent) to the 3ml of ethanolic extract solution. Brick red precipitate indicates the presence of proteins and amino acids.

Ninhydrin test: Add 3 drops of 5% ninhydrin solution to the 3ml of ethanolic extract then boiling in a water bath for 10min. Formation of purple or bluish color is observed.

IV. CONCLUSION

This chapter summarizes the findings of the present paper- Qualitative analysis of Primary Metabolite as carbohydrates, fats, Vitamins,

Minerals, Lipids, Water, Enzymes, and Amino acids
etc.

V. REFERENCES

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