Ultra Chemistry Vol. 9(1), 178-179 (2013).

Phytochemical Analysis of the Benzene Extract of *Hibiscus rosa sinensis*

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(Acceptance Date 17th November, 2011)

Abstract

The study was aimed at evaluating the phytochemical analysis of benzene extract of *Hibiscus rosa sinensis* flowers. The extract was found to contain large amounts of phenolic compounds, alkaloids and flavonoids. The GC-MS study carried out showed the presence of phytochemicals like phosphoric acid, p-hydroxyphenyl (RT : 13.049) Squalene (RT : 41.55) and 1-iodoundecan (RT : 47.126).

Key words : Phenolic compounds, flavonoids, alkaloids, *Hibiscus rosa sinensis.*

Hibiscus rosa sinensis (Family Malvacae) is an ornamental plant. It grows as an evergreen herbaceous plant. It bears large flowers on the bushy hedges. These enormous flowers are usually red in colour and are not usually fragrant. Different cultivers and hybrids have been produced and developed with flowers ranging in colors and other features. The flowers have been reported to possess anti-implantation and antispermatogenic activities. The extracts of *Hibiscus rosa sinensis* have also been shown a protective effect against the tumour promotion stage of Cancer development. Our present study is to investigate the phytochemical composition and the chemical constituents were studied by GC-MS analysis[1-4].

Preparation of Extract : All the flowers were shade direct at room temperature and finely powdered with the help of mixer-grinder. About 150 g of the powder was extracted with benzene. The extract was concentrated to a residue. The crude extract was used for further testing for its phytochemical compounds.

Phytochemical analysis of flower extracts:

A very small portion of the crude extract was used for the phytochemical tests for compounds.

1. 2 g. of the flower extract was dissolved in 10 ml. of distilled water and filtered by Whatman No. 1 filter paper. After this in filtrate added ferric chloride reagent. Its blue coloration results. It shows the presence of tannins[5-7].
2. 4 g. of the flower extract was dissolved in 5 ml. of 1% HCl on steam bath and add

few drops of Dragendoff's' reagent. Precipitation indicate the presence of alkaloids.

3. 2 g. of flower extract was dissolved in methanol and heated. After that a chip of magnesium metal was added to the mixture by addition of 2 or 3 drops of Conc. HCl. Red colour was obtained which indicate the presence of flavonoids.

The Results of phytochemical analysis of the flower extract of *Hibiscus rosa sinensis,* Tannins, alkaloids, flavonoids etc. were found in the extract. Since phenolic compounds and flavonoids are responsible for the antioxidant activity, the amounts present in the extract are high indicating good antioxidant activity. The presence of phenolic compounds in the flower contributed to its antioxident activity and thus usefulness of the *Hibiscus rosa sinensis* plant as a medicament[8].

The major components present in the flowers are squalene (RT : 41.55) p-hydroxyphenyl (RT : 13.049) l- iodsundecane (RT : 47.126).

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